THE MICROID SILENT SHAKING MACHINE

New modern design, compact in size, efficient in performance and noiseless in operation.

SILENT EFFICIENT

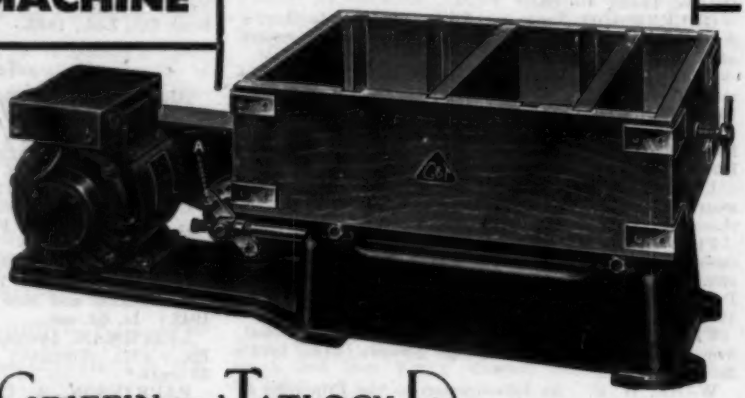
ADAPTABLE ROBUST

Please apply for leaflet GT1239/1.

Incorporates a new resiliently sheathed bearing which never requires lubrication and can never rattle.
Utilises an unusual ratio

$$\frac{\text{shaker speed}}{\text{shaker throw}}$$

resulting in extraordinarily efficient mixing, shaking, washing, extraction, etc. Box will accommodate 2 Winchester quarts, and is adjustable for smaller sizes.



GRIFFIN and TATLOCK Ltd

LONDON Kemble St., W.C.2 | MANCHESTER 19 Cheetham Hill Rd., 4 | GLASGOW 45 Renfrew St., C.2 | EDINBURGH 7 Teviot Place, 1

Established as Scientific Instrument Makers in 1826

BOOKS

NEW SCIENTIFIC BOOKS

The large stock of English and Foreign Scientific books is arranged for easy inspection.
Please state interests when writing.
All usual Services are available.

SCIENTIFIC LENDING LIBRARY

The Library lends books on the Pure, Applied and Medical Sciences
Annual Subscription, Town or Country, from *One Guinea.*
Prospectus post free on application.

SECOND-HAND SCIENTIFIC BOOKS

Larger stock of *recent editions* of Medical and Scientific books offered at reduced prices. EARLY MEDICAL and SCIENTIFIC books available. *Address:* 140 GOWER STREET.

STATIONERY

for the Student and Research Worker. Drawing Instruments, Slide Rules, Logarithmic and Squared Papers, Microscope Slides, Cover Slips and Boxes.

H. K. LEWIS & Co. Ltd.
136 GOWER STREET, LONDON, W.C.1
Telephone: EUSton 4282 (5 lines)

MATHEMATICS ESSENTIAL TO ELECTRICITY AND RADIO

By Lieut. N. M. COOKE, U.S.N. and J. B. ORLEANS
Head of the Mathematics Department, George Washington High School, New York City

417 pages, 9 x 6 248 illustrations 18/-

This book presents the essentials of algebra, geometry and trigonometry needed to solve everyday problems in electricity and radio, and, offering the necessary theory and applications of both subjects side by side with the mathematics, it gives the student a quick working knowledge of such applications.

Examples precede each group of new problems and well-planned illustrations supplement the text throughout. The language is simple and non-technical and the book contains complete definitions of electrical and radio terms.

McGraw-Hill Publishing Co. Ltd.
Aldwych House, London, W.C.2

RECENT SCIENTIFIC and TECHNICAL BOOKS

Volumes marked with an asterisk (*) have been received at "NATURE" Office

Mathematics : Mechanics : Physics

GOLDING, E. W., and GREEN, H. G. Elementary Practical Mathematics. (National Certificate Series.) Book 3. Demy 8vo. Pp. 192. (London: Sir Isaac Pitman and Sons, Ltd., 1943.) 7s. 6d. net.

GREENWOOD, THOMAS. Essais sur la pensée géométrique. Med. 8vo. Pp. 100. (Ottawa: University of Ottawa, 1943.) 1 dollar.*

GREENWOOD, THOMAS. Prolégomènes à la théorie des quanta. Sup. Roy. 8vo. Pp. 61. (Ottawa: University of Ottawa, 1943.) 60 cents.*

GREENWOOD, THOMAS. Études sur la connaissance mathématique. Sup. Roy. 8vo. Pp. viii +112. (Ottawa: University of Ottawa, 1942.) 1 dollar.*

KRAITCHIK, MAURICE. Mathematical Recreations. Demy 8vo. Pp. 328. (London: George Allen and Unwin, Ltd., 1943.) 12s. 6d. net.*

LEE, L. A., and REEKIE, R. F. Descriptive Geometry for Architects and Builders. Demy 8vo. Pp. 232. (London: E. Arnold and Co., 1943.) 7s. 6d. net.

PRINGSHEIM, PETER, and VOGEL, MARCEL. Luminescence of Liquids and Solids: and its Practical Applications. Med. 8vo. Pp. x +201. (New York: Interscience Publishers, Inc.; London: Imperia Book Co., Ltd., 1943.) 4 dollars.*

VINE, DAVID. Aircraft Hydraulics Simplified. Med. 8vo. Pp. 48. (London: George Newnes, Ltd., 1943.) 3s. 6d. net.

WARE, W. F. An Introduction to the Principles of Flight. Cr. 8vo. Pp. v +158. (London: Macmillan and Co., Ltd., 1943.) 3s. net.

Engineering

BOLTZ, C. L. Basic Radio. (Nelson's Aeroscience Manuals.) Cr. 8vo. Pp. 272. (London and Edinburgh: Thomas Nelson and Sons, Ltd., 1943.) 5s. net.*

CAMM, F. J. Screw Thread Tables. Cr. 16mo. Pp. 208. (London: George Newnes, Ltd., 1943.) 5s. net.

COTTON, H. Electrical Technology. (Engineering Degree Series.) Fifth edition. Demy 8vo. Pp. 553. (London: Sir Isaac Pitman and Sons, Ltd., 1943.) 15s. net.

"FACTUS". Manual of Radio Circuits. (Key to Victory Series.) Oblong Cr. 8vo. Pp. 48. (London: Bernards (Publishers), Ltd., 1943.) 2s. net.

"FACTUS". Radio Valve Manual. (Key to Victory Series.) Roy. 8vo. Pp. 64. (London: Bernards (Publishers), Ltd., 1943.) 3s. 6d. net.

GOODMAN, WILLIAM. Air Conditioning Analysis: with Psychometric Charts and Tables. Med. 8vo. Pp. xxv +455. (New York: The Macmillan Company, 1943.) 28s. net.

HAZELL, W. Understanding Basic Engineering by Question and Answer. Gl. 8vo. Pp. 147. (Bickley: English Universities Press, Ltd., 1943.) 2s. 6d. net.

HENSHAW, JOHN T. Airframe Construction and Repair. Demy 8vo. Pp. 138. (London: Sir Isaac Pitman and Sons, Ltd., 1943.) 7s. 6d. net.

JUDGE, A. W. Engineering Materials. Second edition. Demy 8vo. Vol. 1. Pp. 370. 25s. net. Vol. 2. Pp. 480. 30s. net. (London: Sir Isaac Pitman and Sons, Ltd., 1943.)

KELLAWAY, F. W. Wireless for Everyman. Cr. 8vo. Pp. 48. (Bognor Regis: John Crowther, Ltd., 1943.) 2s. 6d. net.

MOLLOY, E., Edited by. Newnes' Electrical Tables and Data. Cr. 16mo. Pp. xxii +682. (London: George Newnes, Ltd., 1943.) 10s. 6d. net.

Chemistry : Chemical Industry

FREAR, DONALD E. H. Chemistry of Insecticides and Fungicides. Demy 8vo. Pp. viii +300. (New York: D. Van Nostrand Company, Inc.; London: Chapman and Hall, Ltd., 1943.) 22s. net.

MIDDLETON, H. Systematic Qualitative Organic Analysis. Second edition. Demy 8vo. Pp. viii +280. (London: Edward Arnold and Co., 1943.) 8s. 6d. net.*

OTT, EMIL, Edited by. Cellulose and Cellulose Derivatives. (High Polymers: a Series of Monographs on the Chemistry, Physics and Technology of High Polymeric Substances, Vol. 5.) Med. 8vo. Pp. xix +1176. (New York: Interscience Publishers, Inc.; London: Imperia Book Co., Ltd., 1943.) 15 dollars.*

Technology

BROWN, D. W. Plastics Simplified. (Pocket Handbooks Series.) Cr. 8vo. Pp. 32. (London: Sir Isaac Pitman and Sons, Ltd., 1943.) 1s. 6d. net.

BROWN, D. WARBURTON. Handbook of Engineering Plastics. Med. 8vo. Pp. viii +216 +32. (London: George Newnes, Ltd., 1943.) 17s. 6d. net.

COX, A. Depth of Focus. Cr. 8vo. Pp. 76. (London and New York: The Focal Press, Ltd., 1943.) 3s. 6d. net.

JACOBSON, C. I. All about Filters and your Camera. (Photo Guide Series.) Revised edition. Fcap. 8vo. Pp. 56. (London and New York: The Focal Press, Ltd., 1943.) 1s. 6d. net.

LEECHMAN, DOUGLAS. Vegetable Dyes. Cr. 8vo. Pp. v +55. (Toronto: Oxford University Press, 1943.) 35 cents.*

PARKINSON, A. C. Screw Thread Cutting and Measurement. Demy 8vo. Pp. 162. (London: Sir Isaac Pitman and Sons, Ltd., 1943.) 6s. net.

SMITH, EDWIN. All about Winter Photography and your Camera. (Photo Guide Series.) Revised edition. Fcap. 8vo. Pp. 56. (London and New York: The Focal Press, Ltd., 1943.) 1s. 6d. net.

SMITH, P. I. Principles and Processes of Light Leather Manufacture. Demy 8vo. Pp. viii +408. (Brooklyn, N.Y.: Chemical Publishing Company, Inc.; London: Chapman and Hall, Ltd., 1943.) 30s. net.

STUNKARD, W. R. The Instructor of Steel Arc Welding. Demy 8vo. Pp. 112. (London: The Mitre Press, Ltd., 1943.) 15s. net.

WADENOYEN, HUGO VAN. All about Against the Sun Effects and your Camera. (Photo Guide Series.) Revised edition. Fcap. 8vo. Pp. 56. (London and New York: The Focal Press, Ltd., 1943.) 1s. 6d. net.

WADENOYEN, HUGO VAN. All about Portraits and your Camera. (Photo Guide Series.) Fcap. 8vo. Pp. 56. (London and New York: The Focal Press, Ltd., 1943.) 1s. 6d. net.

Astronomy

CHICHESTER, FL.-LIEUT. FRANCIS. Star Recognition. Folio. Pp. 20 +3 charts. (London: George Allen and Unwin, Ltd., 1943.) 7s. 6d. net.*

Meteorology : Geophysics

ALEXANDER, WILLIAM. Junior Officer's Handbook on Weather. Fcap. 8vo. Pp. 92. (London: George Allen and Unwin, Ltd., 1943.) 2s. 6d. net.

KIMBLE, GEORGE, and BUSH, RAYMOND. The Weather. (Pelican Books, A.124.) Gl. 8vo. Pp. 188 +24 plates. (Harmondsworth and New York: Penguin Books, Ltd., 1943.) 9d. net.*

Geology : Mineralogy

BLYTH, F. G. H. A Geology for Engineers. Demy 8vo. Pp. viii +302 +16 plates. (London: Edward Arnold and Co., 1943.) 21s. net.*

SEWARD, THE LATE SIR ALBERT CHARLES. Geology for Everyman. Cr. 8vo. Pp. xi +312 +8 plates. (Cambridge: At the University Press, 1943.) 10s. 6d. net.*

General Biology : Natural History Botany : Zoology

COKER, WILLIAM CHAMBERS, and BEERS, ALMA HOLLAND. The Boletaceae of North Carolina. Sup. Roy. 8vo. Pp. viii +96 +6 plates. (Chapel Hill, N.C.: University of North Carolina Press; London: Oxford University Press, 1943.) 43s. net.*

ENNION, E. A. R. The British Bird. (Realms of Natural Science Series.) Cr. 8vo. Pp. 172 +15 plates. (London: Oxford University Press, 1943.) 5s. net.

GLASS, BENTLEY. Genes and the Man. (Science in Modern Living Series.) Demy 8vo. Pp. xii +386. (New York: Teachers College of Columbia University, 1943.) 3.50 dollars.*

HOERR, NORMAND L., Edited by. Frontiers in Cytochemistry: the Physical and Chemical Organization of the Cytoplasm. (Biological Symposia, Vol. 10.) Sup. Roy. 8vo. Pp. vii +334. (Lancaster, Pa.: The Jaques Cattell Press, 1943.) 3.50 dollars.*

LUCKWILL, LEONARD B. The Genus Lycopersicon: an Historical, Biological and Taxonomic Survey of the Wild and Cultivated Tomatoes. (Aberdeen University Studies, No. 120.) Cr. 4to. Pp. 44. (Aberdeen: The University Press, 1943.) 5s.*

TURNBULL, A. L. Bird Music: an Introduction to the Study of the Vocal Expressions of British Birds, with Appreciations of their Songs. Ex. Cr. 8vo. Pp. 125 +46 plates. (London: Faber and Faber, Ltd., 1943.) 7s. 6d. net.*

WHITEHOUSE, R. H., and GROVE, A. J. The Dissection of the Earthworm. Cr. 8vo. Pp. iv +72. (London: University Tutorial Press, Ltd., 1943.) 2s. 6d.*

Agriculture : Horticulture : Forestry

CHEYNEY, E. G. American Silvics and Silviculture. Med. 8vo. Pp. 484. (Minneapolis: University of Minnesota Press; London: Oxford University Press, 1943.) 30s. net.

DARLING, F. FRASER. Island Farm. Demy 8vo. Pp. 224 +26 plates. (London: G. Bell and Sons, Ltd., 1943.) 15s. net.*

EASTERBROOK, L. F., Edited by. The Future of Agriculture. Demy 4to. Pp. 77. (London: Todd Publishing Co., 1943.) 7s. 6d.

KITCHEN, FRED. The Farming Front. Demy 8vo. Pp. 138. (London: J. M. Dent and Sons, Ltd., 1943.) 12s. 6d. net.

LOCKLEY, R. M. Inland Farm. Ex. Cr. 8vo. Pp. 192. (London: H. F. and G. Witherby, Ltd., 1943.) 10s. net.

PHILLIPS, A. H. The Science of Soilless Culture. Cr. 8vo. Pp. 128. (London: C. Arthur Pearson, Ltd., 1943.) 5s. net.

RHODE, ELEANOUR SINCLAIR. Uncommon Vegetables: How to Grow and How to Cook. Gl. 8vo. Pp. 94. (London: *Country Life*, Ltd., 1943.) 5s. net.

SHEWELL-COOPER, W. E. Eating Without Heating: a New Conception of Salad Growing. Cr. 8vo. Pp. 136. (London: John Gifford, Ltd., 1943.) 5s. net.

Philosophy : Psychology

CONKLIN, EDWIN GRANT. Man, Real and Ideal: Observations and Reflections on Man's Nature, Development and Destiny. Demy 8vo. Pp. xvii +247. (New York and London: Charles Scribner's Sons, 1943.) 2.50 dollars.*

McDOWALL, R. J. S. Sane Psychology: a Biological Introduction to Psychology. A revised and enlarged edition of "A Biological Introduction to Psychology". Cr. 8vo. Pp. xii +275. (London: John Murray, 1943.) 9s. net.*

MACE, DAVID. Does Sex Morality Matter? (Needs of To-day Series.) Gl. 8vo. Pp. 158. (London: Rich and Cowan, Ltd., 1943.) 5s. net.

MULLINS, CLAUD. Crime and Psychology. Cr. 8vo. Pp. 234. (London: Methuen and Co., Ltd., 1943.) 8s. 6d. net.

SREENIVASA IYENGAR, K. R. The Metaphysics of Value. Vol. 1: General Principles and the Kingdom of Values. Demy 8vo. Pp. xxxi +645. (Mysore: University of Mysore, 1942.) 5 rupees.*

WEST, RANYARD. Conscience and Society: a Study of the Psychological Prerequisites of Law and Order. Demy 8vo. Pp. iv +260. (London: Methuen and Co., Ltd., 1942.) 15s. net.*

Bacteriology : Hygiene

DOORLY, ELEANOR. The Microbe Man: a Life of Pasteur for Children. (Puffin Story Books, PS.8.) Gl. 8vo. Pp. 112. (Harmondsworth and New York: Penguin Books, Ltd., 1943.) 9d. net.*

HILL, HARRY. Pasteurisation. Demy 8vo. Pp. viii +152. (London: H. K. Lewis and Co., Ltd., 1943.) 10s. net.*

PEARSE, INNES H., and CROCKER, LUCY H. The Peckham Experiment: a Study in the Living Structure of Society. (Published for the Sir Halley Stewart Trust.) Demy 8vo. Pp. 334 +16 plates. (London: George Allen and Unwin, Ltd., 1943.) 12s. net.*

Miscellany

BRIMBLE, L. J. F., and MAY, FREDERICK J. Social Studies and World Citizenship: a Sociological Approach to Education. Cr. 8vo. Pp. xii +158. (London: Macmillan and Co., Ltd., 1943.) 6s. net.*

CHAPMAN, DOROTHY M. A. B. C. (Baby Puffin Book, No. 1.) Oblong Fcap. 8vo. Pp. 32. (Harmondsworth and New York: Penguin Books, Ltd., 1943.) 6d. net.*

CHAPMAN, DOROTHY M. Counting Book. (Baby Puffin Book, No. 2.) Oblong Fcap. 8vo. Pp. 32. (Harmondsworth and New York: Penguin Books, Ltd., 1943.) 6d. net.*

CHORLEY, KATHARINE. Armies and the Art of Revolution. Demy 8vo. Pp. 274. (London: Faber and Faber, Ltd., 1943.) 12s. 6d. net.*

CURSITER, STANLEY. Art in Industry: with Special Reference to Conditions in Scotland. (Saltire Pamphlets, No. 4.) Cr. 8vo. Pp. 32 +8 plates. (Edinburgh and London: Oliver and Boyd, Ltd., 1943.) 1s. net.*

EVANS, A. J. Why Not Prosperity? (Penguin Special, S.136.) Gl. 8vo. Pp. 128. (Harmondsworth and New York: Penguin Books, Ltd., 1943.) 9d. net.*

EVANS, IVOR B. N. Rutherford of Nelson. (Pelican Books, A.110.) Gl. 8vo. Pp. 232. (Harmondsworth and New York: Penguin Books, Ltd., 1943.) 9d. net.*

GILL, REV. HENRY V. Fact and Fiction in Modern Science. Demy 8vo. Pp. vii +194. (Dublin: M. H. Gill and Son, Ltd., 1943.) 8s. 6d.*

HAMILTON, MARY AGNES. British Trade Unions. (Oxford Pamphlets on Home Affairs, No. H.7.) Cr. 8vo. Pp. 32. (London: Oxford University Press, 1943.) 6d. net.*

LEA, F. A. Carlyle, Prophet of To-day. Cr. 8vo. Pp. viii +178 +2 plates. (London: George Routledge and Sons, Ltd., 1943.) 8s. 6d. net.*

LEHMANN, JOHN, Edited by. The Penguin New Writing. No. 17: April—June. Gl. 8vo. Pp. 176. (Harmondsworth and New York: Penguin Books, Ltd., 1943.) 9d. net.*

LINDSAY, A. D. Religion, Science and Society in the Modern World. (The Terry Lectures delivered at Yale University, 1943.) Cr. 8vo. Pp. 64. (London: Oxford University Press, 1943.) 3s. 6d. net.*

MANCE, BRIG.-GENERAL SIR OSBORNE, assisted by WHEELER, J. E. International Air Transport. (International Transport and Communications.) (Issued under the auspices of the Royal Institute of International Affairs.) Demy 8vo. Pp. x +118. (London, New York and Toronto: Oxford University Press, 1943.) 7s. 6d. net.*

SINGER, H. W. Standardized Accountancy in Germany. (National Institute of Economic and Social Research, Occasional Papers 5.) Demy 8vo. Pp. 68. (Cambridge: At the University Press, 1943.) 6s. net.*

FOR ESTIMATION OF VITAMINS B_1 AND B_2

AND OTHER FLUORIMETRIC TESTS

THE SPEKKER PHOTO-ELECTRIC FLUORIMETER

ROBUST SIMPLE ACCURATE

Measurements are made photo-electrically by a null method and are independent of personal error.

Apparatus is connected to A.C. mains and is self-compensating for voltage variations.

Can easily be converted to an efficient photo-electric colorimeter.

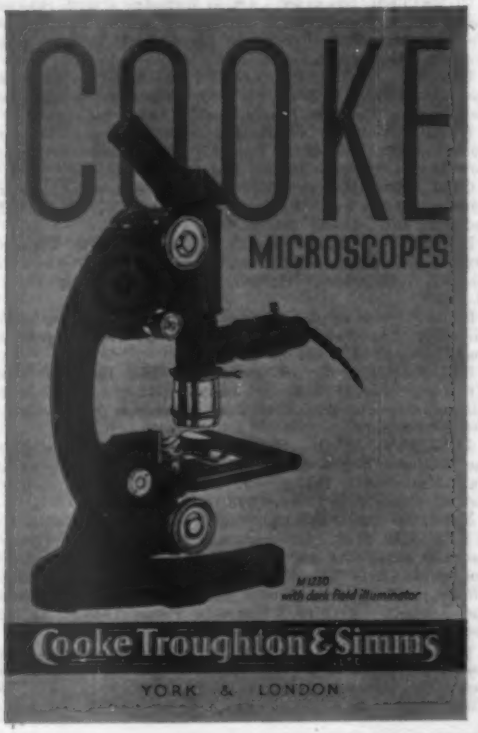
ASK FOR CATALOGUE SB 295

ADAM HILGER LTD.

98 St. Pancras Way Camden Road

LONDON N.W.1 ENGLAND

Phone: GULliver 4451 (3 lines)



SECOND-HAND MICROSCOPES

by SWIFT, BECK, WATSON, BAKER, ZEISS, LEITZ, REICHERT, HIMMLER, BAUSCH & LOMB, etc

MICROSCOPES BOUGHT for CASH OR TAKEN IN EXCHANGE

A limited selection available. State requirements.

CLARKSON'S, 338 High Holborn, LONDON, W.C.1

Opp. Gray's Inn Rd. 'Phone: HOLborn 2141. Estab. over a Century

JAMES SWIFT & SON LTD.

Manufacturers of

MICROSCOPES for

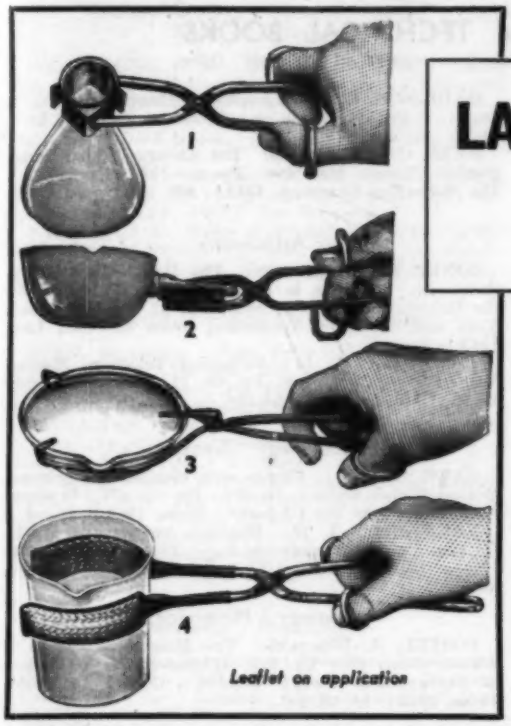
BIOLOGY, MINERALOGY, METALLURGY, PHOTOMICROGRAPHIC & PROJECTION APPARATUS, GONIOMETERS, REFRACTOMETERS, SPECTROMETERS, OPTICAL MEASURING & TESTING APPARATUS, POLARISING PRISMS & OPTICAL ELEMENTS

REPAIRS TO ANY MAKE OF ABOVE INSTRUMENTS

Owing to prevailing conditions delivery cannot always be guaranteed

81 Tottenham Court Road
London, W.1

PRINTED IN GREAT BRITAIN BY FISHER, KNIGHT AND CO., LTD., ST. ALBANS



Leaflet on application

LABORATORY TONGS

(FISHER PATTERN)

Four unusual types of tongs designed for safety and convenience in handling hot laboratory apparatus. All are made in stainless steel. All are designed (except evaporating dish tongs) so that weight is supported on the *palm* of the hand—not the fingers.

With these tongs apparatus containing hot liquids can be tipped in perfect safety, without accidents and without burning the fingers.

1. FLASK tongs—grip flasks of all shapes in sizes 100-2,000 cc. capacity.
2. CASSEROLE tongs—for sizes No. 000 to No. 5 inclusive.
3. EVAPORATING DISH tongs—for sizes 70-125 mm.
4. BEAKER tongs—accommodate all sizes 100-1,500 cc. capacity.

All types—each 13/6. Set of four—£2 10s. 0d.

Sole British Manufacturers:

GRIFFIN and TATLOCK Ltd

LONDON	MANCHESTER	GLASGOW	EDINBURGH
Kemble St., W.C.2	19 Cheetham Hill Rd., 4	45 Renfrew St., C.2	7 Teviot Place, 1

Established as Scientific Instrument Makers in 1826

WHATMAN

High Grade FILTER PAPERS

ASK' FOR

WHATMAN

Every effort is being made to cope with the enormously increased demand both for Home and Export. In case of difficulty in obtaining supplies, please write Sole Sales Representatives :—

H. REEVE ANGEL & Co., Ltd.

9 Bridewell Place, London, E.C.4

and at

7-11 Spruce Street
NEW YORK

Sole Manufacturers :—
W. & R. BALSTON LTD.

STOCKED BY ALL
LABORATORY FURNISHERS
IN SEALED BOXES

RECENT SCIENTIFIC and TECHNICAL BOOKS

Volumes marked with an asterisk (*) have been received at "NATURE" Office

Mathematics : Mechanics : Physics

BALLARD, P. B. Fundamental Arithmetic. Book 5. New edition. Cr. 8vo. Pp. 96. (Bickley: University of London Press, Ltd., 1944.) 1s. 8d.

BALLARD, P. B., and HAMILTON, E. R. Fundamental Geometry. First Series, Pupil's Book 1. New edition. Cr. 8vo. (Bickley: University of London Press, Ltd., 1943.) 1s. 2d.

BORN, MAX. Experiment and Theory in Physics. Cr. 8vo. Pp. iv +44. (Cambridge: At the University Press, 1943.) 2s. net.*

CALTHROP, J. E. A German Physics Reader. Cr. 8vo. Pp. 83. (London and Toronto: William Heinemann, Ltd., 1943.) 7s. 6d. net.*

STOTT, R. W. Electronic Theory and Chemical Reactions: an Elementary Treatment. Cr. 8vo. Pp. viii +112. (London, New York and Toronto: Longmans, Green and Co., Ltd., 1943.) 6s. net.*

Engineering

DANCE, H. E. Engineers at Work. Med. 8vo. Pp 245 +8 plates. (Edinburgh and London: Thomas Nelson and Sons, Ltd., 1943.) 10s. 6d. net.

FABER, O., and KELL, J. R. Heating and Air-Conditioning of Buildings. Second edition. 8vo. Pp. 580. (Cheam: Architectural Press, Ltd., 1943.) 45s. net.

HORNER, J. G. Pattern Making for Engineers. Seventh edition, revised by P. Gates. Cr. 8vo. Pp. 402. (Kingston Hill: The Technical Press, Ltd., 1943.) 15s. net.

HORSNAILL, W. O. Understanding Marine Engines by Question and Answer. (Question and Answer Series.) Gl. 8vo. Pp. 125. (Bickley: English Universities Press, Ltd., 1943.) 2s. 6d. net.

STUART, A. H., Edited by. Practical Engineer Pocket Book, 1944. Cr. 24mo. Pp. 704. (London: Oxford University Press, 1944.) 3s. 6d. net.

WELLER, B. F. Radio-Technology. Demy 8vo. Pp. viii +358. (London: Chapman and Hall, Ltd., 1943.) 21s. net.*

Chemistry : Chemical Industry

BLAIR, G. W. SCOTT. A Survey of General and Applied Rheology. Demy 8vo. Pp. xvi +196. (London: Sir Isaac Pitman and Sons, Ltd., 1943.) 18s. net.*

EMELÉUS, H. J., and WATSON, H. B. Post-Graduate Lectures. Inorganic Chemistry, by H. J. Emeléus, and Organic Chemistry, by H. B. Watson. Demy 8vo. Pp. 84. (London: Oil and Colour Chemists' Association, 1943.) 10s.*

GADD, H. W. A Synopsis of the British Pharmacopœia, 1932, and Addenda. Fourteenth edition. 32mo. Pp. 228. (London: Baillière, Tindall and Cox, 1943.) 3s. 6d. net.

LEADERMAN, HERBERT. Elastic and Creep Properties of Filamentous Materials and other High Polymers. Sup. Roy. 8vo. Pp. xii +278. (Washington, D.C.: Textile Foundation, 1943.)*

Technology

COLLINGS, G. Circular Work in Carpentry and Joinery. New edition. Cr. 8vo. Pp. 179. (Kingston Hill: The Technical Press, Ltd., 1943.) 5s. net.

EMANUEL, W. D. Contax Guide. Second edition. Fcap. 8vo. Pp. 112. (London and New York: The Focal Press, Ltd., 1943.) 5s. 6d. net.

EMANUEL, W. D. Exakta Guide. Second edition. Fcap. 8vo. Pp. 112. (London and New York: The Focal Press, Ltd., 1943.) 5s. 6d. net.

GREENWOOD, H. W. Document Photography. Second edition. Cr. 8vo. Pp. 164. (London and New York: The Focal Press, Ltd., 1943.) 7s. 6d. net.

HARRISON, R. Photography for Pleasure and Profit. Cr. 8vo. Pp. 64. (Epping: Vawser and Wiles, Ltd., 1943.) 2s. net.

MEES, C. E. KENNETH. The Theory of the Photographic Process. Med. 8vo. Pp. xi +1124. (New York: The Macmillan Company, 1942.) 60s. net.*

Astronomy

JONES, SIR H. SPENCER. The Royal Observatory, Greenwich. (Science in Britain Series: Published for the British Council.) Cr. 8vo. Pp. 42. (London, New York and Toronto: Longmans, Green and Co., Ltd., 1943.) 1s. net.

TWEEDALE, C. L. Reflecting Telescope Making. New edition. Demy 8vo. Pp. 68. (London: T. Werner Laurie, Ltd., 1943.) 7s. 6d. net.

Meteorology : Geophysics

CAVE, C. J. P. Clouds and Weather Phenomena. Second edition, revised. Cr. 8vo. Pp. viii +24 +42 plates. (Cambridge: At the University Press, 1943.) 5s. net.*

TANNEHILL, I. R. Weather Around the World. Cr. 8vo. Pp. 212. (Princeton, N.J.: Princeton University Press; London: Oxford University Press, 1943.) 16s. net.

Geology : Mineralogy

POSTEL, A. WILLIAMS. The Mineral Resources of Africa. Demy 8vo. Pp. 114. (Philadelphia: University of Pennsylvania Press; London: Oxford University Press, 1943.) 8s. 6d. net.

Geography : Travel

ELDERSHAW, M. B. My Australia. New edition. Cr. 8vo. Pp. 192. (London: Jarrolds (Publishers), London, Ltd., 1943.) 6s. net.

FORTESCUE, LADY WINIFRED. Mountain Madness. Cr. 8vo. Pp. 177. (Edinburgh and London: Wm. Blackwood and Sons, Ltd., 1943.) 10s. 6d. net.

HASLUND, HENNING. Tents in Mongolia. A Youth edition, prepared by Eleanor Graham. (Puffin Story Books, PS.10.) Gl. 8vo. Pp. 144. (Harmondsworth and New York: Penguin Books, Ltd., 1943.) 9d. net.*

JOHNSTON'S Handy Royal Atlas of Modern Geography. Demy 4to. Pp. 120 +lvi. (Edinburgh and London: W. and A. K. Johnston, Ltd., 1943.) 21s. net.

KEARTON, CHERRY. In the Land of the Lion. New edition. Demy 8vo. Pp. 250. (Bristol: J. W. Arrowsmith, Ltd., 1943.) 10s. net.

LAKEMAN, T. Of Hills. Demy 8vo. Pp. 96. (London: Chapman and Hall, Ltd., 1943.) 8s. 6d. net.

LAPIE, PIERRE OLIVIER. My Travels through Chad. Translated from the French by Leslie Bull. Demy 8vo. Pp. 198. (London: John Murray, 1943.) 10s. net.

POUCHER, W. A. Escape to the Hills. Roy. 4to. Pp. 216. (London: *Country Life*, Ltd., 1943.) 25s. net.

SHIPTON, ERIC. Upon That Mountain. Demy 8vo. Pp. 224 +31 plates. (London: Hodder and Stoughton, Ltd., 1943.) 12s. 6d. net.

SMITH, NICOL. Black Martinique—Red Guiana. Cr. 8vo. Pp. 168. (London: Jarrolds (London) Publishers, Ltd., 1943.) 12s. 6d. net.

STEFANSSON, VILHJALMUR. Greenland. Med. 8vo. Pp. 240. (London, Bombay and Sydney: George G. Harrap and Co., Ltd., 1943.) 12s. 6d. net.

STEMBRIDGE, J. H. Portrait of Canada. Demy 8vo. Pp. 176. (London: Oxford University Press, 1943.) 10s. 6d. net.

STEMBRIDGE, J. H. Oxford War Atlas. Vol. 2. Cr. 8vo. Pp. 96. (London: Oxford University Press, 1943.) 3s. net.

General Biology : Natural History Botany : Zoology

ARMSTRONG, E. A. The Way Birds Live. Demy 8vo. Pp. 96 +16 plates. (London : Lindsay Drummond, Ltd., 1943.) 7s. 6d. net.

EVANS, H. MUIR. Sting-fish and Seafarer. Demy 8vo. Pp. 180 +8 plates. (London : Faber and Faber, Ltd., 1943.) 15s. net.*

HENDY, E. W. Somerset Birds and some Other Folk. Demy 8vo. Pp. 165 +15 plates. (London : Eyre and Spottiswoode, Ltd., 1943.) 10s. 6d. net.*

NORMAN, J. R. Fishes of Britain's Rivers and Lakes. (King Penguin Series.) Cr. 8vo. Pp. 48. (Harmondsworth and New York : Penguin Books, Ltd., 1943.) 2s. net.

Agriculture : Horticulture : Forestry

BUSH, RAYMOND. Tree Fruit Growing. Vol. 1 : Apples. Gl. 8vo. Pp. 184. Vol. 2 : Pears, Quinces and Stone Fruits. Gl. 8vo. Pp. 168. (Harmondsworth and New York : Penguin Books, Ltd., 1943.) 9d. net each.

FAULKNER, EDWARD H. Plowman's Folly. Ex. Cr. 8vo. Pp. v +162. (Norman, Okla. : University of Oklahoma Press, 1943.) 2 dollars.*

STOKER, FRED. A Book of Lilies. (King Penguin Series.) Cr. 8vo. Pp. 32 +16 plates. (Harmondsworth and New York : Penguin Books, Ltd., 1943.) 2s. net.

TAYLOR, H. C., and TAYLOR, A. D. World Trade in Agricultural Products. Ex. Cr. 8vo. Pp. xviii +286. (London : Macmillan and Co., Ltd., 1943.) 15s. net.

Anatomy : Physiology

BEARD, H. H. Creatine and Creatinine Metabolism. Demy 8vo. Pp. x +376. (Brooklyn, N.Y. : Chemical Publishing Co., Inc. ; London : Chapman and Hall, Ltd., 1943.) 24s. net.

VITAMINS. The Vitamins : a General Survey for the Practising Pharmacist. Second (revised) edition. (Published by the Pharmaceutical Society of Great Britain.) Cr. 8vo. Pp. 64. (London : Pharmaceutical Press, 1944.) 2s. 6d.*

WOODGER, J. H. Elementary Morphology and Physiology for Medical Students : a Guide for the First Year and a Stepping-stone to the Second. Third edition. Demy 8vo. Pp. xvi +522. (London : Oxford University Press, 1943.) 15s. net.*

Anthropology : Archæology

BELLAMY, H. S. Built Before the Flood : the Problem of the Tiahuanaco Ruins. Demy 8vo. Pp. 144. (London : Faber and Faber, Ltd., 1943.) 12s. 6d. net.*

ELLIS, HILDA RODERICK. The Road to Hel : a Study of the Conception of the Dead in old Norse Literature. Demy 8vo. Pp. viii +208. (Cambridge : At the University Press, 1943.) 12s. 6d. net.

Philosophy : Psychology

BONGER, WILLEM ADRIAAN. Race and Crime. Translated from the Dutch by Margaret Mathews Hordyk. Ex. Cr. 8vo. Pp. xi +130. (New York : Columbia University Press ; London : Oxford University Press, 1943.) 10s. net.*

CRONBACH, LEE J. Exploring the War-time Morale of High-School Youth. Med. 8vo. Pp. 80. (Stanford University, Calif. : Stanford University Press ; London : Oxford University Press, 1943.) 8s. net.

MAY, MARK A. A Social Psychology of War and Peace. Med. 8vo. Pp. 294. (New Haven, Conn. : Yale University Press ; London : Oxford University Press, 1943.) 16s. 6d. net.

MURRELL, J. L. Streamline your Mind. New edition. Cr. 8vo. Pp. 172. (London : Watts and Co., Ltd., 1943.) 5s. net.

SPIER, JULIUS. The Hands of Children : an Introduction to Psycho-Chirology. Translated by Victor Grove. Demy 8vo. Pp. xii +179. (London : Kegan Paul and Co., Ltd., 1944.) 16s. 6d. net.*

VALENTINE, C. W. The Human Factor in the Army : some Applications of Psychology to Training, Selection, Morale and Discipline. Cr. 8vo. Pp. 104. (London : Gale and Polden, Ltd., 1943.) 2s. 6d. net.

Bacteriology : Hygiene

CLEGG, H. Medicine in Britain. (British Life and Thought Series.) Demy 8vo. Pp. 46. (London, New York and Toronto : Longmans, Green and Co., Ltd., 1944.) 1s. net.

ENOCK, ARTHUR GUY. This Milk Business : a Study from 1895 to 1943. Med. 8vo. Pp. xi +243 +xii–lii +13 plates. (London : H. K. Lewis and Co., Ltd., 1943.) 18s. net.*

O'HARA, DWIGHT. Air-borne Infection : Some Observations on its Decline. Demy 8vo. Pp. x +114. (New York : The Commonwealth Fund ; London : Oxford University Press, 1943.) 8s. 6d. net.*

Miscellany

BODMER, FREDERICK. The Loom of Language : a Guide to Foreign Languages for the Home Student. Edited and arranged by Lancelot Hogben. (Primers for the Age of Plenty, No. 3.) Demy 8vo. Pp. 670. (London : George Allen and Unwin, Ltd., 1943.) 15s. net.*

CULBERTSON, ELY. Summary of the World Federation Plan : an Outline of a Practical and Detailed Plan for World Settlement. Demy 8vo. Pp. 78. (London : Faber and Faber, Ltd., 1944.) 5s. net.*

DENT, H. C. Education in Transition : a Sociological Study of the Impact of War on English Education, 1939–1943. (International Library of Sociology and Social Reconstruction.) Demy 8vo. Pp. xi +244. (London : Kegan Paul and Co., Ltd., 1944.) 12s. 6d. net.*

FRIEDMANN, W. The Crisis of the National State. Demy 8vo. Pp. ix +198. (London : Macmillan and Co., Ltd., 1943.) 12s. 6d. net.*

GARNETT, MAXWELL. The World We Mean to Make : and the Part of Education in Making It. Demy 8vo. Pp. 264. (London : Faber and Faber, Ltd., 1943.) 10s. 6d. net.*

HOGBEN, LANCELOT. Interglossa. (Pelican Books.) Gl. 8vo. Pp. 282. (Harmondsworth and New York : Penguin Books, Ltd., 1943.) 9d. net.

MAXWELL, RONALD. Still Point : an Essay in Living. Cr. 8vo. Pp. 75. (London : Nisbet and Co., Ltd., 1943.) 6s. net.*

SHKAPSKAYA, M. It Actually Happened : a Book of Facts. Demy 16mo. Pp. 52. (Moscow : Foreign Languages Publishing House, 1942.)*

SOVIET STUDENTS. Fellow Students to Battle ! Anti-Fascist Meeting of Soviet Students, Moscow, November 15, 1942. Roy. 16mo. Pp. 36. (Moscow : Foreign Languages Publishing House, 1942.)*

THOMPSON, LT.-COL. PAUL W., DOUD, LT.-COL. HAROLD, and SCOFIELD, LT. JOHN. How the Jap Army Fights. (Penguin Special, S.135.) Gl. 8vo. Pp. 128 +11 plates. (Harmondsworth and New York : Penguin Books, Ltd., 1943.) 9d. net.*

TOLSTOY, A., SIMONOV, K., KONONENKO, E., SAYANOV, V., NAGORNI, S., and STAVSKY, V. Ram Them ! Tales about Daring Soviet Airmen. Fcap. 8vo. Pp. 44. (Moscow : Foreign Languages Publishing House, 1943.)*

WHITEHOUSE, J. HOWARD. The School Base. Second edition, with Supplements. Demy 8vo. Pp. 64. (London : Oxford University Press, 1943.) 2s. net.*

YOUNG, G. M., Prepared under the supervision of, and with an Introduction by. Country and Town : a Summary of the Scott and Uthwatt Reports. (Penguin Special, S.139.) Gl. 8vo. Pp. 142. (Harmondsworth and New York : Penguin Books, Ltd., 1943.) 9d. net.*

The Diagnosis of Metallurgical States by X-rays

is described in a new booklet

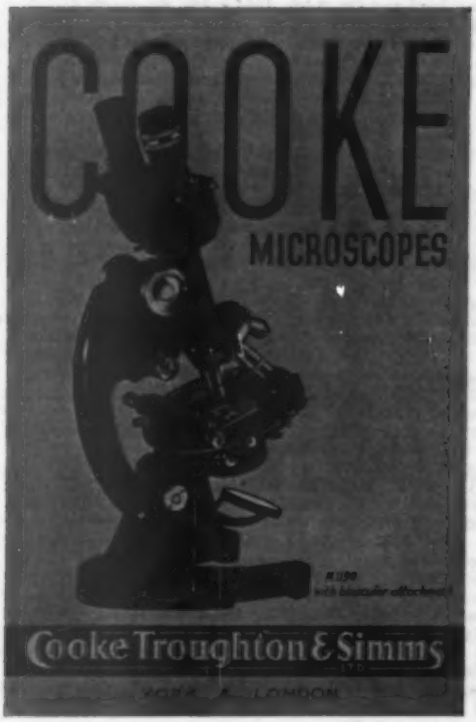
X-RAY CRYSTAL ANALYSIS IN WORKS CONTROL

"It is the aim of these notes to make clear to practical metallurgists that the methods in question can, in their hands, give extremely useful information, and that a suitably designed apparatus may be used as a works tool for the control of manufacturing processes and for routine inspection."

COPIES MAY BE OBTAINED, ON REQUEST, FROM

ADAM HILGER LTD.
98 St. Pancras Way Camden Road
LONDON N.W.1 **ENGLAND**

Phone: GULliver 4451



PRINTED IN GREAT BRITAIN BY FISHER, KNIGHT AND CO., LTD., ST. ALBANS

WHATMAN
High Grade FILTER PAPERS

ASK FOR
WHATMAN

Every effort is being made to cope with the enormously increased demand both for Home and Export. In case of difficulty in obtaining supplies, please write Sole Sales Representatives :—

H. REEVE ANGEL & Co., Ltd.
9 Bridewell Place, London, E.C.4

and at
7-11 Spruce Street
NEW YORK

Sole Manufacturers :—
W. & R. BALSTON LTD.

STOCKED BY ALL
LABORATORY FURNISHERS
IN SEALED BOXES

BOOKS

NEW SCIENTIFIC BOOKS

The large stock of English and Foreign Scientific books is arranged for easy inspection.
Please state interests when writing.
All usual Services are available.

SCIENTIFIC LENDING LIBRARY

The Library lends books
on the Pure, Applied and Medical Sciences
Annual Subscription, Town or Country, from One Guinea.
Prospectus, with quarterly List of Additions, post free.

SECOND-HAND SCIENTIFIC BOOKS

Larger stock of *recent editions* of Medical and Scientific books offered at reduced prices. EARLY MEDICAL and SCIENTIFIC books available. *Address*: 140 GOWER STREET.

STATIONERY

for the Student and Research Worker. Drawing Instruments, Slide Rules, Logarithmic and Squared Papers, Microscope Slides, Cover Slips and Boxes.

H. K. LEWIS & Co. Ltd.
136 GOWER STREET, LONDON, W.C.1
Telephone: EUSton 4282 (5 lines)

MICROWAVE TRANSMISSION

By J. C. SLATER
Professor of Physics, Massachusetts Institute of Technology

309 pages, 9 × 6 75 illustrations, 24/6

This book deals with microwaves, electromagnetic waves in the wave length range from one meter to one centimeter, both from the standpoint of conventional transmission lines and of Maxwell's equations. It describes the general theory underlying the methods actually used for transmitting microwaves from point to point, from the generator in which they are produced to the receiver in which they are detected, with the intermediate stage of radiation from one antenna and absorption by another antenna.

Contents

Transmission Lines
Maxwell's Equations, Plane Waves, and Reflection
Rectangular Wave Guides
The General Transmission Line Problem
Radiation from Antennas
Directive Devices for Antennas
Coupling of Coaxial Lines and Wave Guides

McGraw-Hill Publishing Co. Ltd.
Aldwych House, London, W.C.2

RECENT SCIENTIFIC and TECHNICAL BOOKS

Volumes marked with an asterisk (*) have been received at "NATURE" Office

Mathematics : Mechanics : Physics

ABBOTT, P., and KERRIDGE, C. E. National Certificate Mathematics. Vol. 1. Fourth edition. Cr. 8vo. Pp. 352. (Bickley: English Universities Press, Ltd., 1944.) 6*s*. net.

BALLARD, P. B. Fundamental Arithmetic. Pupil's Book 6. New edition. Cr. 8vo. (Bickley: University of London Press, Ltd., 1944.) 1*s*. 7*d*.

DÉVÉ, COLONEL CHARLES. Optical Workshop Principles. Being a translation of "Le travail des Verres d'optique de Précision". Translated by Thomas L. Tippell. Demy 8vo. Pp. xiv +306. (London: Adam Hilger, Ltd., 1943.) 20*s*. net.*

LEMON, H. B., and FERENCE, M. Analytical Experimental Physics. 4to. Pp. xvi +484. (Chicago: University of Chicago Press; London: Cambridge University Press, 1943.) 34*s*. 6*d*. net.

LEWITT, E. H. Thermodynamics Applied to Heat Engines. Third edition. Cr. 8vo. Pp. 294. (London: Sir Isaac Pitman and Sons, Ltd., 1944.) 25*s*. net.

PIERCY, N. A. V. Aerodynamics. Second edition. Sup. Roy. 8vo. Pp. 440. (Bickley: English Universities Press, Ltd., 1944.) 30*s*. net.

Engineering

ALDOUS, DONALD W. Manual of Direct Disc Recording. Gl. 8vo. Pp. 50. (London: Bernards (Publishers), Ltd., 1944.) 2*s*.*

ATKINSON, A. D. S. Fluorescent Lighting. Med. 8vo. Pp. 144. (London: George Newnes, Ltd., 1944.) 12*s*. 6*d*. net.

BEAUMONT, R. A. Mechanical Testing of Metallic Materials. (Ground Engineers' Series.) Second edition. Demy 8vo. Pp. 142. (London: Sir Isaac Pitman and Sons, Ltd., 1943.) 8*s*. 6*d*. net.

COUZENS, E. G., and WEARMOUTH, W. G. Plastics in the Radio Industry. ("Electronic Engineering" Technical Monographs.) Demy 8vo. Pp. ii +58. (London: Hulton Press, Ltd., 1944.) 2*s*. 6*d*. net.*

GRIFFITHS, W. R. J., and SKEAT, W. O. The Works Engineer. Second edition. Demy 8vo. Pp. 364. (London: Sir Isaac Pitman and Sons, Ltd., 1944.) 21*s*. net.

HAGUE, B. Alternating Current Bridge Methods. Fifth edition. Demy 8vo. Pp. 616. (London: Sir Isaac Pitman and Sons, Ltd., 1943.) 30*s*. net.

HAZELL, W. Understanding Aero Engines by Question and Answer. New edition. Cr. 8vo. (Bickley: English Universities Press, Ltd., 1944.) 2*s*. 6*d*. net.

JACKSON, L. C. Wave Filters. (Methuen's Monographs on Physical Subjects.) Fcap. 8vo. Pp. vii + 107. (London: Methuen and Co., Ltd., 1944.) 4*s*. 6*d*. net.*

PEARSON, CLAUDE E. The Extrusion of Metals. Demy 8vo. Pp. viii +205 +37 plates. (London: Chapman and Hall, Ltd., 1944.) 18*s*. net.*

PIPPARD, A. J. S., and BAKER, J. F. The Analysis of Engineering Structures. Second revised edition. Demy 8vo. Pp. 640. (London: Edward Arnold and Co., 1944.) 30*s*. net.

REYNOLDS, T. J., and KENT, L. E. Structural Steelwork: for Building and Architectural Students. Fourth edition. Demy 8vo. Pp. 378. (Bickley: English Universities Press, Ltd., 1943.) 12*s*. 6*d*. net.

SQUIRE, E. M. Radio Questions and Answers. Vol. 1: Basic Radio. Cr. 8vo. Pp. 86. (London: Sir Isaac Pitman and Sons, Ltd., 1944.) 5*s*. net.

WILLIAMS, D. S. D. Simple Oil-Engine Plant Operation. Cr. 16mo. Pp. 62. (London: Hodder and Stoughton, Ltd., 1943.) 1*s*. 6*d*. net.

WITTS, ALFRED T. Radio Upkeep and Repairs. Sixth edition. Cr. 8vo. Pp. 238. (London: Sir Isaac Pitman and Sons, Ltd., 1944.) 7*s*. 6*d*. net.

Chemistry : Chemical Industry

DURRANS, THOS. H. Solvents. (Monographs on Applied Chemistry, Vol. 4.) Fifth edition, revised and enlarged. Demy 8vo. Pp. xii +202. (London: Chapman and Hall, Ltd., 1944.) 17*s*. 6*d*. net.*

MARTINDALE's The Extra Pharmacopœia. Twenty-second edition. In 2 vols. Cr. 8vo. Vol. 2. Pp. xxxiii +1217. (London: The Pharmaceutical Press, 1943.) 27*s*. 6*d*.*

MARTINDALE. Supplement to the Extra Pharmacopœia. Twenty-second edition. Vol. 1. Gl. 8vo. Pp. 48. (London: Pharmaceutical Press, 1943.) 2*s*.*

REINER, MARKUS. Ten Lectures on Theoretical Rheology. Cr. 8vo. Pp. iv +164. (Jerusalem: Rubin Mass; London: H. K. Lewis and Co., Ltd., 1943.) 22*s*. 6*d*. net.*

Meteorology : Geophysics

WILLIS, JOHN H. Weatherwise: England's Weather through the Past Thirty Years. Demy 8vo. Pp. 110 +30 plates. (London: George Allen and Unwin, Ltd., 1944.) 7*s*. 6*d*. net.*

Geology : Mineralogy

JONES, W. R. Minerals in Industry. (Pelican Books, A.123.) Gl. 8vo. Pp. 149. (Harmondsworth and New York: Penguin Books, Ltd., 1944.) 9*d*. net.*

RAISTRICK, A. Teach Yourself Geology. (Teach Yourself Series.) Gl. 8vo. Pp. 272. (Bickley: English Universities Press, Ltd., 1943.) 3*s*. net.

Geography : Travel

BAERLEIN, HENRY. Baltic Paradise. Demy 8vo. Pp. 159. (London: Frederick Muller, Ltd., 1943.) 10*s*. 6*d*. net.

BROOKS, L., North America. (New Regional Geographies, Book 1, Part 1.) New edition. Cr. 8vo. Pp. 180. (Bickley: University of London Press, Ltd., 1944.) 3*s*. 6*d*.

CHAPMAN, OLIVE MURRAY. Across Cyprus. Ex. Cr. 8vo. Pp. 254. (London: John Lane The Bodley Head, Ltd., 1943.) 8*s*. 6*d*. net.

CORNISH, VAUGHAN. The Beauties of Scenery: a Geographical Survey. Cr. 8vo. Pp. 128 +16 plates. (London: Frederick Muller, Ltd., 1943.) 6*s*. net.*

FIELD, RICHARD M., and STETSON, HARLAN T. Map Reading and Avigation: an Introduction. Demy 4to. Pp. xiii +129. (London: Chapman and Hall, Ltd., 1943.) 15*s*. net.*

POUCHER, W. A. Scotland Through the Lens: Loch Tulla to Lochaber. Cr. 4to. Pp. 120. (London: Chapman and Hall, Ltd., 1943.) 18*s*. net.

SAUNDERS, HILARY ST. GEORGE. Pioneers! O Pioneers! Cr. 8vo. Pp. vi +193. (London: Macmillan and Co., Ltd., 1944.) 8*s*. 6*d*. net.

TSCHIFFELY, A. F. A Tale of Two Horses. Demy 8vo. Pp. 196. (London: Hodder and Stoughton, Ltd., 1943.) 10*s*. 6*d*. net.

VAN DERSAL, WILLIAM R. The American Land: its History and its Uses. Demy 8vo. Pp. xvi +215 +65 plates. (London, New York and Toronto: Oxford University Press, 1943.) 21*s*. 6*d*. net.*

General Biology : Natural History
Botany : Zoology

DISCOVERY REPORTS. Issued by the Discovery Committee, Colonial Office, London, on behalf of the Government of the Dependencies of the Falkland Islands. Vol. 22. Roy. 4to. Title-Page and List of Contents. Pp. vi. 9*d*. net. Station List, 1933–1935. Pp. 196 +4 plates. 30*s*. net. The Southern Stocks of Whalebone Whales. By N. A. Mackintosh. Pp. 197–300. 15*s*. net. Polyzoa (Bryozoa), 1: Scrupocellariidae, Epistomiidae, Farcominariidae, Bicellariellidae, Aeteidae, Scrupariidae. By Anna B. Hastings. Pp. 301–510 +plates 5–13. 35*s*. net. Complete, 75*s*. net. Vol. 23. Roy. 4to. The Gut of Nebaliacea. By Helen G. Q. Rowett. Pp. 18. 3*s*. net. (Cambridge: At the University Press, 1943.)*

ERDTMAN, G. An Introduction to Pollen Analysis. (A New Series of Plant Science Books, Vol. 12.) Sup. Roy. 8vo. Pp. xvi +240. (Waltham, Mass.: Chronica Botanica Company: London: Wm. Dawson and Sons, Ltd., 1943.) 5 dollars.*

KNIGHT, CAPT. C. W. R. All British Eagle. Demy 8vo. Pp. 178. (Bickley: Hodder and Stoughton, Ltd., 1943.) 10*s*. 6*d*. net.

MACINTYRE, DUGALD. Highland Naturalist: a Gamekeeper's Observations and Discoveries. Demy 8vo. Pp. 240 +8 plates. (London: Seeley, Service and Co., Ltd., 1944.) 12*s*. 6*d*. net.*

RIDLEY, G. N. Man Studies Life: the Story of Biology. (Thinker's Library, No. 97.) Pott 8vo. Pp. x +109. (London: Watts and Co., Ltd., 1944.) 2*s*. 6*d*. net.*

RIKLI, M. Das Pflenzenkleid der Mittelmeerländer. Sup. Roy. 8vo. Lieferung 3. Pp. 241–352 +13 plates. Lieferung 4. Pp. 353–436 +14 plates. (Bern: Hans Huber, 1943.) 9 Schw. francs each.*

ROBERTS, J. E. A Year with Nature. Cr. 8vo. Pp. viii + 236. (London: Edward Arnold and Co., 1944.) 3*s*. 6*d*.*

Agriculture : Horticulture : Forestry

COOKSON, B. M. Dairy Cows and their Management. Cr. 8vo. Pp. 72 +16 plates. (London: Faber and Faber, Ltd., 1944.) 5*s*. net.*

DUNCAN, RONALD. Journal of a Husbandman. Ex. Cr. 8vo. Pp. 139. (London: Faber and Faber, Ltd., 1944.) 8*s*. 6*d*. net.

HOWARD, ALEXANDER L. Supplement to Studies of the Identification of Timbers. Roy. 8vo. Pp. 20. (London: Macmillan and Co., Ltd., 1943.) 5*s*. net.*

LIVESTOCK PRODUCTS. Adapting Livestock Products to War Needs. (Food in Wartime Series.) 8vo. Pp. vi +50. (Berkeley, Calif.: University of California Press; London: Cambridge University Press, 1943.) 2*s*. net.

SHEWELL-COOPER, W. E. Bulb Growing Inside and Out. Cr. 8vo. Pp. 153. (London: John Gifford, Ltd., 1943.) 5*s*. net.

SHEWELL-COOPER, W. E. Continuous Cloche Gardening. New edition. Cr. 8vo. Pp. 96. (Bickley: English Universities Press, Ltd., 1943.) 1*s*. 6*d*. net.

Anatomy : Physiology

BEARD, HOWARD H. Creatine and Creatinine Metabolism. Demy 8vo. Pp. x +376. (London: Chapman and Hall, Ltd., 1943.) 24*s*. net.*

LIVINGSTON, W. K. Pain Mechanisms: a Physiologic Interpretation of Causalgia and its Related States. Demy 8vo. Pp. xiii +253. (New York: The Macmillan Company, 1943.) 18*s*. net.*

SPALTEHOLZ, W. Hand-Atlas of Human Anatomy. Translated from the German by L. F. Barker. New edition. Cr. 4to. Pp. 902. (Philadelphia and London: J. B. Lippincott Co., Ltd., 1943.) £5 net.

Anthropology : Archæology

HAWKES, JACQUETTA, and HAWKES, CHRISTOPHER. Prehistoric Britain. (Pelican Books, A.115.) Gl. 8vo. Pp. 136 +16 plates. (Harmondsworth and New York: Penguin Books, Ltd., 1944.) 9*d*. net.*

MONTAGU, M. F. ASHLEY. Man's Most Dangerous Myth: The Fallacy of Race. Demy 8vo. Pp. 230. (New York: Columbia University Press; London: Oxford University Press, 1943.) 15*s*. 6*d*. net.

SPENCE, L. The Outlines of Mythology. (Thinker's Library.) Fcap. 8vo. Pp. 118. (London: Watts and Co., Ltd., 1944.) 2*s*. net.

TOLL, N. The Excavations at Dura-Europos. Final Report, Part 1, Fascicle 1: The Green Glazed Pottery. Cr. 4to. Pp. 100 +20 plates. (New Haven, Conn.: Yale University Press; London: Oxford University Press, 1943.) 13*s*. 6*d*. net.

WORRELL, W. H., Edited by. Coptic Texts in the University of Michigan Collection. Imp. 8vo. Pp. 394. (Ann Arbor, Mich.: University of Michigan Press; London: Oxford University Press, 1943.) 28*s*. net.

Philosophy : Psychology

CAMPBELL, PERCY A. Why the Universe? or Cosmopoietic Space. Roy. 8vo. Pp. vi +189. (San Francisco: George Fields, 1943.) 2.50 dollars.*

STEBBING, L. SUSAN. Men and Moral Principles. (L. T. Hobhouse Memorial Trust Lectures, No. 13, delivered on 12 May 1943 at the Mill Lane Lecture Rooms, Cambridge.) Demy 8vo. Pp. 28. (London: Oxford University Press, 1944.) 2*s*. net.*

Bacteriology : Hygiene

ACKERMAN, LLOYD. Health and Hygiene: a Comprehensive Study of Disease Prevention and Health Promotion. Roy. 8vo. Pp. xii +895. (Lancaster, Pa.: Jaques Cattell Press, 1943.) 5 dollars.*

CULBERTSON, J. T. Medical Parasitology. Med. 8vo. Pp. 302. (New York: Columbia University Press; London: Oxford University Press, 1943.) 28*s*. net.

REYNIERS, JAMES A., Edited by. Micrurgical and Germ-Free Techniques: their Application to Experimental Biology and Medicine; a Symposium. Med. 8vo. Pp. xiv +274. (Springfield, Ill., and Baltimore, Md.: Charles S. Thomas, 1943.) 5 dollars.*

WINSLOW, CHARLES-EDWARD AMORY. The Conquest of Epidemic Disease: a Chapter in the History of Ideas. Roy. 8vo. Pp. xiii +411. (Princeton, N.J.: Princeton University Press; London: Oxford University Press, 1943.) 30*s*. net.*

Miscellany

AMERICAN ASSOCIATION OF SCIENTIFIC WORKERS. Science from Shipboard: a Simple Manual of Information and Instruction for those who Cross the Seas in Ships to Fight for Freedom. Prepared by a Group of Scientific Writers and Artists under the guidance of the Boston-Cambridge Branch of the American Association of Scientific Workers. Cr. 8vo. Pp. 268. (Washington, D.C.: Science Service, Inc., 1943.)*

BAITSELL, G., Edited by. Science in Progress, Third Series. Med. 8vo. Pp. 338. (New Haven, Conn.: Yale University Press; London: Oxford University Press, 1943.) 20*s*. net.

BRERETON, J. L. The Case for Examinations: an Account of their Place in Education, with some Proposals for their Reform. Cr. 8vo. Pp. viii +226. (Cambridge: At the University Press, 1944.) 8*s*. 6*d*. net.*

FREER, PERCY, Edited by. Catalogue of Union Periodicals. Vol. 1: Science and Technology. (Edited for the National Research Council and National Research Board.) Cr. 4to. Pp. xvi +525. (Johannesburg: University of the Witwatersrand, 1943.)*

HUMBERSTONE, THOMAS LLOYD. The Public School Question. Med. 8vo. Pp. 32. (London: Simpkin Marshall, Ltd., 1944.) 2*s*. net.*

KITCHEN, P. I. From Learning to Earning: Birth and Growth of a Young People's College. Demy 8vo. Pp. 168. (London: Faber and Faber, Ltd., 1944.) 8*s*. 6*d*. net.*

LAMBERT, C. M., and HAMMOND, W. G. Signposts to Science. New edition. Cr. 4to. Pp. 240. (Bickley: University of London Press, Ltd., 1944.) 7*s*. 6*d*. net.

LIEPMANN, KATE K. The Journey to Work: its Significance for Industrial and Community Life. (International Library of Sociology and Social Reconstruction.) Demy 8vo. Pp. xii +199. (London: Kegan Paul and Co., Ltd., 1944.) 15*s*. net.*

MOMTCHILOFF, N. Ten Years of Controlled Trade in South-Eastern Europe. (National Institute of Economic and Social Research, Occasional Papers, No. 6.) Demy 8vo. Pp. 90. (Cambridge: At the University Press, 1944.) 6*s*. net.*

PLANNING for Reconstruction. Fcap. 8vo. Pp. 100. (Cheam: Architectural Press, Ltd., 1944.) 1*s*.*

ROSENAU, HELEN. Woman in Art: from Type to Personality. (Isomorph 1.) Oblong Cr. 8vo. Pp. 100. (London: Isomorph, Ltd., 1944.) 5*s*. net.*

SAVORY, T. H., JOSLIN, F. E., and WALTON, JOHN. Biologists Seven. (Living Names Series.) Cr. 8vo. Pp. 90. (London: Oxford University Press, 1943.) Paper, 1*s*. 3*d*. net; cloth, 1*s*. 6*d*. net.

IT IS MORE ACCURATE as well as quicker to perform

COLORIMETRIC ANALYSES

photoelectrically with

THE SPEKKER*
ABSORPTIOMETER

FOR ESTIMATION of metals, sugar solutions, phosphates, hæmoglobin, blood sugar, carotene, pH values, bacteriological solutions, etc.

ADVANTAGES:
- Readings obtained in a few seconds.
- Independent of personal errors.
- Compact, self-contained and portable.
- Few optical parts to keep clean.
- Independent of fluctuations of mains voltage.
- All-glass cells.

Ask for catalogue SB244

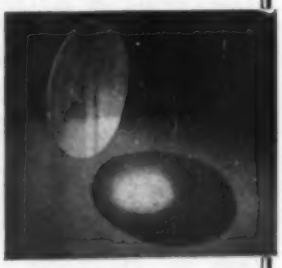
ADAM HILGER LTD.
98 St. Pancras Way - Camden Road
LONDON - N.W.1 - ENGLAND
Phone: GULliver 4451 (3 lines)

* Trade-mark Regd. in Gt. Britain, Eire, U.S.A., Germany and Japan

Lenses...

Optically worked Lenses, also Mirrors, are manufactured on a mass production basis for a wide variety of purposes.

Lenses in Crown Glass with spherical, cylindrical or plane surfaces up to 3" in diameter are in constant production in very large numbers.



Mirrors from the conventional Galvanometer sizes up to 5" in diameter are made and can be protected if necessary to withstand solvents or heat.

Quotations will willingly be given on receipt of full particulars, including Priority details.

Manufactured by

GOWLLANDS LTD.
MORLAND ROAD, CROYDON

Manufacturers for the Trade only

"POSTLIP"
(No. 633 Mill)
ENGLISH FILTER PAPERS

Manufactured in
ANNUALLY INCREASING QUANTITIES
for upwards of 50 years.

White and Grey Plain, Antique, Crinkled, and Embossed.

PURE ENGLISH FILTERING POSTLIP MILLS

All sizes in Squares, Circles, and Folded Filters. Rolls made to order.

Pure Filterings for Laboratory Work and in quantities for all industrial purposes.

★ See Report of TESTS made by The National Physical Laboratory, a copy of which will be sent on application, together with free samples if required.

Postlip Filterings are stocked by all the leading Wholesale Laboratory Dealers.

EVANS, ADLARD & CO., LTD.
POSTLIP MILLS
WINCHCOMBE, CHELTENHAM, ENGLAND

PRINTED IN GREAT BRITAIN BY FISHER, KNIGHT AND CO., LTD., ST. ALBANS

MICROWAVE TRANSMISSION

By J. C. SLATER

Professor of Physics, Massachusetts Institute of Technology

309 pages, 9 × 6 75 illustrations, 24/6

This book deals with microwaves, electromagnetic waves in the wave length range from one meter to one centimeter, both from the standpoint of conventional transmission lines and of Maxwell's equations. It describes the general theory underlying the methods actually used for transmitting microwaves from point to point, from the generator in which they are produced to the receiver in which they are detected, with the intermediate stage of radiation from one antenna and absorption by another antenna.

Contents

Transmission Lines
Maxwell's Equations, Plane Waves, and Reflection
Rectangular Wave Guides
The General Transmission Line Problem
Radiation from Antennas
Directive Devices for Antennas
Coupling of Coaxial Lines and Wave Guides

McGraw-Hill Publishing Co. Ltd.

Aldwych House, London, W.C.2

BOOKS

NEW SCIENTIFIC BOOKS

The large stock of English and Foreign Scientific books is arranged for easy inspection.

Please state interests when writing.

All usual Services are available.

SCIENTIFIC LENDING LIBRARY

The Library lends books on the Pure, Applied and Medical Sciences

Annual Subscription, Town or Country, from One Guinea.

Prospectus, with quarterly List of Additions, post free.

SECOND-HAND SCIENTIFIC BOOKS

Larger stock of *recent editions* of Medical and Scientific books offered at reduced prices. EARLY MEDICAL and SCIENTIFIC books available. *Address*: 140 GOWER STREET.

STATIONERY

for the Student and Research Worker. Drawing Instruments, Slide Rules, Logarithmic and Squared Papers, Microscope Slides, Cover Slips and Boxes.

H. K. LEWIS & Co. Ltd.

136 GOWER STREET, LONDON, W.C.1

Telephone: EUSton 4282 (5 lines)

ARNOLD BOOKS

The Arachnida

By THEODORE H. SAVORY, M.A. xii + 218 *pp. with* 99 *drawings and* 8 *plates*. 25*s. net*.

"To the naturalist it is a stimulating mine, to the zoologist a most valuable work of reference."—*Discovery*.

The Louse

By P. A. BUXTON, M.A., M.R.C.S., L.R.C.P., Professor of Medical Entomology, University of London. x + 116 *pp.*, 28 *diagrams*. 7*s.* 6*d. net*.

"An admirable statement of existing knowledge of the anatomy, physiology and natural history of the louse, the insecticidal methods applicable to it, and the practical means for utilising these methods in different circumstances."—*The Lancet*.

A Text-book of Practical Entomology

By F. BALFOUR-BROWNE, M.A., F.R.S.E., F.L.S. viii + 191 *pp., with* 116 *diagrams*. 18*s. net*.

The Behaviour of Animals

An Introduction to its Study. By E. S. RUSSELL, D.Sc., F.L.S. Second Edition. viii + 196 *pp.*, 26 *diagrams and* 6 *plates*. 10*s.* 6*d. net*.

"This edition fully sustains and extends the high opinion we have previously expressed of the original work."—*North Western Naturalist*.

An Introduction to

Physical Anthropology

By E. P. STIBBE, F.R.C.S., lately Professor of Anatomy in the University of London. Second Edition. viii + 230 *pp.*, 56 *illustrations*. 10*s.* 6*d. net*.

"This easy, even gentle, introduction should encourage both amateur and professional readers to explore further one or more of the aspects of the study of man presented to him with such grace."—*The Lancet*.

Oyster Biology and Oyster Culture

By J. H. ORTON, D.Sc., Professor of Zoology in the University of Liverpool. 200 *pp.*, 57 *illustrations. Based on the Buckland Lectures for* 1935. 5*s. net*.

"Of this presentation we can scarcely write too highly, both as to its form and substance—the complete life-history of the 'Native' and an excellent account of its culture."—*Nature*.

Biology for Students of Pharmacy

By E. J. MOORE, M.C., M.Sc., lately Lecturer in Biology, Central Technical College, Birmingham. viii + 415 *pp.*, 204 *illustrations*, 8 *plates*. 15*s. net*.

"The book can be described as excellent."—*Nature*.

The Essentials of Biology

By JAMES JOHNSTONE, D.Sc., lately Professor of Oceanography in the University of Liverpool. xvi + 328 *pp.*, 44 *diagrams*. 16*s. net*.

Detailed Prospectuses and Catalogue on request.

EDWARD ARNOLD & CO.
41 & 43, MADDOX ST, LONDON, W.1

RECENT SCIENTIFIC and TECHNICAL BOOKS

Volumes marked with an asterisk (*) have been received at "NATURE" Office

Mathematics : Mechanics : Physics

HARDY, G. H., and ROGOSINSKI, W. W. Fourier Series. (Cambridge Tracts in Mathematics and Mathematical Physics, No. 38.) Demy 8vo. Pp. viii +100. (Cambridge : At the University Press, 1944.) 8s. 6d. net.*

WOOD, ALEXANDER. The Physics of Music. Demy 8vo. Pp. xii +256 +14 plates. (London : Methuen and Co., Ltd., 1944.) 21s. net.*

YULE, G. UDNY. The Statistical Study of Literary Vocabulary. Sup. Roy. 8vo. Pp. ix +306. (Cambridge : At the University Press, 1944.) 25s. net.*

Engineering

BLANDFORD, P. W. 1000 Questions and Answers for Practical Engineers. Gl. 8vo. Pp. 88. (London : Hutchinson and Co. (Publishers), Ltd., 1944.) 2s. net.

COLLACOTT, R. A. Development in Design of Heavy Oil Engines. Cr. 8vo. Pp. 120. (London : Crosby Lockwood and Son, Ltd., 1944.) 6s. net.

KEMPE, H. R., and HANNEFORD-SMITH, W., Originally compiled by. The Engineer's Year-Book of Formulæ, Rules, Tables, Data and Memoranda for 1944 ; a Compendium of the Modern Practice of Civil, Mechanical, Electrical, Marine, Gas, Aero, Mine and Metallurgical Engineering. 50th annual issue, revised under the direction of L. St. L. Pendred. Cr. 8vo. Pp. 2800. (London : Morgan Brothers (Publishers), Ltd., 1944.) 40s. net.

MANNING, GEORGE C. Manual of Ship Construction. Med. 8vo. Pp. 313. (London : Chapman and Hall, Ltd., 1944.) 16s. net.

NORTHCROFT, L. G. Steam Trapping and Air Venting. Demy 8vo. Pp. 172. (London : Hutchinson and Co., Ltd., 1944.) 10s. 6d. net.

PRACTICAL ENGINEER'S Pocket Book, 1944. Cr. 32mo. Pp. 426. (London : Odhams Press, Ltd., 1944.) 3s. 6d. net.

YOUNG, S. J., and PRYER, R. W. J. The Testing of Internal Combustion Engines. New edition. Cr. 8vo. (Bickley : English Universities Press, Ltd., 1944.) 8s. 6d. net.

Chemistry : Chemical Industry

'ANALAR' Standards for Laboratory Chemicals : being Improved Standards for the Analytical Reagents formerly known as 'A.R.'. Third edition. Demy 8vo. Pp. xvi +230. (London : British Drug Houses, Ltd., and Hopkin and Williams, Ltd., 1944.) 5s. net.*

BRUNAUER, STEPHEN. The Adsorption of Gases and Vapors. Vol. I : Physical Adsorption. Med. 8vo. Pp. vii +510. (Princeton, N.J. : Princeton University Press ; London : Oxford University Press, 1943.)*

SELWOOD, PIERCE W. Magnetochemistry. Med. 8vo. Pp. ix +287. (New York : Interscience Publishers, Inc. ; London : Imperia Book Co., Ltd., 1943.) 5 dollars.*

SHEED, M. C., and MAYNARD, J. L. General Inorganic Chemistry. Third edition. Demy 8vo. Pp. xviii +1166. (New York : D. Van Nostrand Company, Inc. ; London : Chapman and Hall, Ltd., 1943.) 25s. net.

Technology

BARRON, HARRY. Modern Synthetic Rubbers. Second edition, revised and enlarged. Demy 8vo. Pp. xii +355 +20 plates. (London : Chapman and Hall, Ltd., 1943.) 28s. net.*

BRITISH JOURNAL Photographic Almanac and Photographer's Daily Companion, with which is incorporated the Year Book of Photography and Amateurs' Guide and the Photographic Annual, 1944. Edited by Arthur J. Dalladay. Cr. 8vo. Pp. 384 +31 plates. (London : Henry Greenwood and Co., Ltd., 1944.) Paper, 3s. 6d. net ; cloth, 5s. net.*

"FACTUS". Toolmakers' and Engineers' Manual. (Key to Victory Series.) Roy. 8vo. Pp. 16. (London : Bernards (Publishers), Ltd., 1944.) 1s. net.

FLECK, H. RONALD. Plastics, Scientific and Technological. (Published for the Temple Press, Ltd.) Med. 8vo. Pp. 325 +li. (London : English Universities Press, Ltd., 1944.) 25s. net.*

HOWARD, E. D., Edited by. Modern Foundry Practice. Demy 8vo. Pp. 384. (London : Odhams Press, Ltd., 1944.) 8s. 6d. net.

HUTCHESON, R. Toolmaking Hints and Tips. Cr. 8vo. Pp. 82. (Maidenhead : Percival Marshall and Co., Ltd., 1944.) 3s. net.

JACOBSON, C. I. Enlarging : the Technique of the Positive. Fourth edition. Cr. 8vo. Pp. 304. (London and New York : The Focal Press, Ltd., 1943.) 9s. 6d. net.

JACOBSON, C. I. Developing. Third revised edition. Cr. 8vo. Pp. 304. (London and New York : The Focal Press, Ltd., 1944.) 10s. 6d. net.

KELLAWAY, F. W., and MEADWAY, N. P. Introducing Plastics. Cr. 8vo. Pp. 80. (Bognor Regis : John Crowther, Ltd., 1944.) 10s. 6d. net.

STREET, ARTHUR, and ALEXANDER, WILLIAM. Metals in the Service of Man. (Pelican Books, A.125.) Gl. 8vo. Pp. 192 +20 plates. (Harmondsworth and New York : Penguin Books, Ltd., 1944.) 9d. net.*

WALL, E. J. Dictionary of Photography. Sixteenth edition, edited by F. J. Mortimer and A. L. M. Sowerby. Cr. 8vo. Pp. 701. (London : Fountain Press, Ltd., 1943.) 12s. 6d. net.

Astronomy

"KASPAR". Teach Yourself Astro-Navigation. (Teach Yourself Series.) Gl. 8vo. Pp. 184. (Bickley : English Universities Press, Ltd., 1944.) 3s. net.

SHAPLEY, HARLOW. Galaxies. (Harvard Books on Astronomy.) Demy 8vo. Pp. vii +229. (Philadelphia : The Blakiston Company, 1943.) 2.50 dollars.*

Geography : Travel

ADAMS, D. T. An Elementary Geography of the Gold Coast. Third revised edition. Cr. 8vo. (Bickley : University of London Press, Ltd., 1944.) 4s.

BROOKS, L. New Regional Geographies. Book 3, Part 2. New edition. Cr. 8vo. (Bickley : University of London Press, Ltd., 1944.) 3s. 3d.

COTLOW, LEWIS N. Passport to Adventure. Demy 8vo. Pp. 250. (London : Museum Press, Ltd., 1944.) 15s. net.

DIVINE, A. D. Road to Tunis. Demy 8vo. Pp. 256. (London and Glasgow : Wm. Collins, Sons and Co., Ltd., 1944.) 10s. 6d. net.

JOHNSTON, GEORGE H. New Guinea Diary. Ex. Cr. 8vo. Pp. 240. (London : Victor Gollancz, Ltd., 1944.) 10s. 6d. net.

LEITH-ROSS, S. African Conversation Piece. Demy 8vo. Pp. 132. (London : Hutchinson and Co. (Publishers), Ltd., 1944.) 16s. net.

RODGER, GEORGE. Desert Journey. Demy 8vo. Pp. 151. (London : Cresset Press, Ltd., 1944.) 15s. net.

General Biology : Natural History
Botany : Zoology

AGAR, W. E. A Contribution to the Theory of the Living Organism. Demy 8vo. Pp. 207. (Melbourne : Melbourne University Press ; London : Oxford University Press, 1943.) 12s. 6d.*

PITMAN, C. R. S. A Game Warden Among his Charges. (Penguin Books, 448.) Gl. 8vo. Pp. 192. (Harmondsworth and New York : Penguin Books, Ltd., 1944.) 9d. net.

SPARROW, JR., F. Aquatic Phycomycetes, exclusive of the Saprolegniaceae and Pythium. Med. 8vo. Pp. 808. (Ann Arbor, Mich.: University of Michigan Press; London: Oxford University Press, 1943.) 28*s.* net.

Agriculture : Horticulture : Forestry

EASTERBROOK, L. F. British Agriculture. (British Life and Thought Series: Published for the British Council.) Demy 8vo. Pp. 48. (London, New York and Toronto: Longmans, Green and Co., Ltd., 1944.) 1*s.* net.

FISHWICK, V. C. Good Farming. (Teach Yourself Farming Series.) Gl. 8vo. Pp. 264. (Bickley: English Universities Press, Ltd., 1944.) 3*s.* net.*

GAUT, R. C. A History of Worcestershire Agriculture and Rural Evolution. Demy 8vo. Pp. xvi +490. (Worcester: Littlebury and Co., Ltd., 1939.)*

KING, F. C. The Compost Gardener. Second edition. Demy 8vo. Pp. 90. (Kendal: Titus Wilson and Son, 1944.) 3*s.* net.

MANSFIELD, T. C. The Border in Colour. Demy 8vo. Pp. 236 +80 plates. (London and Glasgow: Wm. Collins, Sons and Co., Ltd., 1944.) 21*s.* net.

MIDDLETON, C. H. All the Year Gardening Guide. Cr. 8vo. Pp. 128. (London: Shaw Publishing Co., Ltd., 1944.) 2*s.* 6*d.* net.

Anatomy : Physiology

LIVINGSTON, LIEUT.-COMDR. W. K. Pain Mechanisms: a Physiologic Interpretation of Causalgia and its Related States. Demy 8vo. Pp. xiii +253. (New York: The Macmillan Company, 1943.) 18*s.* net.*

PLESCH, JOHN. The Blood Pressure and its Disorders, including Angina Pectoris. Demy 8vo. Pp. viii +149 +5 plates. (London: Baillière, Tindall and Cox, 1944.) 15*s.* net.*

Anthropology : Archæology

BOAS, F., Edited by. Kwakiutl Tables. New Series, Part 2: Texts. Med. 8vo. Pp. 236. (New York: Columbia University Press; London: Oxford University Press, 1944.) 25*s.* 6*d.* net.

BONČ-OSMOLOVSKIJ, G. A. Paleolit Kryma. Vypusk 2: Kist' iskopaemogo celoveka iz grota Kiik-Koba. Sup. Roy. 8vo. Pp. 172 +8 plates. (Moscow and Leningrad: Akademie Nauk SSSR, 1941.) 16.50 roubles.* (In Russian, with a Résumé in French.)

MEAD, MARGARET. Coming of Age in Samoa: a Study of Adolescence and Sex in Primitive Societies. (Pelican Books, A.127.) Gl. 8vo. Pp. 185. (Harmondsworth and New York: Penguin Books, Ltd., 1944.) 9*d.* net.*

WEBSTER, HUTTON. Taboo: a Sociological Study. Med. 8vo. Pp. xii +393. (Stanford University, Calif.: Stanford University Press; London: Oxford University Press, 1942.) 24*s.* net.*

Philosophy : Psychology

ABEL, THEODORA M., and KINDER, ELAINE F. The Subnormal Adolescent Girl. Demy 8vo. Pp. 230. (New York: Columbia University Press; London: Oxford University Press, 1943.) 16*s.* 6*d.* net.

BENDIT, LAURENCE J. Paranormal Cognition: its Place in Human Psychology. Cr. 8vo. Pp. 79. (London: Faber and Faber, Ltd., 1944.) 5*s.* net.*

FORDHAM, MICHAEL. The Life of Childhood: a Contribution to Analytical Psychology. Demy 8vo. Pp. viii +154 +12 plates. (London: Kegan Paul and Co., Ltd., 1944.) 15*s.* net.*

Bacteriology : Hygiene

McCREADY, BENJAMIN W., 1837. On the Influences of Trades, Professions, and Occupations in the United States, in the Production of Disease. (Publications of the Institute of the History of Medicine, the Johns Hopkins University, Fourth Series: Bibliotheca Medica Americana, Vol. 4.) Ex. Cr. 8vo. Pp. vii +129. (Baltimore, Md.: Johns Hopkins Press, 1943.) 1.75 dollars.*

WILLIAMS, GEORGE BRANSBY. The Purification of Water Supplies. Demy 8vo. Pp. 95. (London: Chapman and Hall, Ltd., 1944.) 7*s.* 6*d.* net.*

Miscellany

BURNHAM, JAMES. The Machiavellians: Defenders of Freedom. Demy 8vo. Pp. v +202. (London: Putnam and Co., Ltd., 1943.) 7*s.* 6*d.* net.*

DAMPIER, SIR WILLIAM CECIL. A Shorter History of Science. Cr. 8vo. Pp. x +190 +9 plates. (Cambridge: At the University Press, 1944.) 7*s.* 6*d.* net.*

ENSOR, R. C. K. The Uphill War, Sept. 1939—Nov. 1942. (Oxford Pamphlets on World Affairs, No. 66.) Cr. 8vo. Pp. 32. (London: Oxford University Press, 1944.) 6*d.* net.*

GRAHAM, SAMUEL A., and O'ROKE, EARL C. On Your Own: How to Take Care of Yourself in Wild Country; a Manual for Field and Service Men. Cr. 8vo. Pp. x +150. (Minneapolis: University of Minnesota Press; London: Oxford University Press, 1943.) 12*s.* net.*

HAYEK, F. A. The Road to Serfdom. Demy 8vo. Pp. viii +184. (London: George Routledge and Sons, Ltd., 1944.) 10*s.* 6*d* net.*

LOW, A. M. Benefits of War. Cr. 8vo. Pp. 189. (London: John Gifford, Ltd., 1944.) 7*s.* 6*d.* net.

MEDICAL RESEARCH COUNCIL. Special Report Series, No. 248: A Provisional Classification of Diseases and Injuries for use in compiling Morbidity Statistics. By the Committee on Hospital Morbidity Statistics. Roy 8vo. Pp. 168. (London: H.M. Stationery Office, 1944.) 3*s.* net.*

OSBORNE, W. A. Essays and Literary Sketches. Cr. 8vo. Pp. viii +138. (Melbourne, Sydney and Adelaide: Lothian Publishing Co., Pty., Ltd., 1943.) 7*s.* 6*d.**

PETRE, M. D. Alfred Loisy: his Religious Significance. Cr. 8vo. Pp. xi +129. (Cambridge: At the University Press, 1944.) 7*s.* 6*d.* net.*

ROYAL SOCIETY OF LONDON. The Year Book of the Royal Society of London, 1944. (No. 48.) Demy 8vo. Pp. 160. (London: Royal Society, 1944.) 5*s.**

RUYSBROECK, THE BLESSED JAN VAN. The Seven Steps of the Ladder of Spiritual Love. Translated from the Flemish by F. Sherwood Taylor. Cr. 8vo. Pp. viii +64. (London: Dacre Press, 1944.) 3*s.* 6*d.**

SIMONOV, K. Moscow. Demy 16mo. Pp. 24. (Moscow: Foreign Languages Publishing House, 1943.)*

SIMONOV, K. Stalingrad Fights On. Translated from the Russian by D. L. Fromberg. Gl. 8vo. Pp. 48. (Moscow: Foreign Languages Publishing House, 1942.)*

SIMONOV, K. On the Petsamo Road: Notes of a War Correspondent. Cr. 8vo. Pp. 47. (Moscow: Foreign Languages Publishing House, 1942.)*

SMITH, LAURENCE DWIGHT. Cryptography: the Science of Secret Writing. Demy 8vo. Pp. 164. (London: George Allen and Unwin, Ltd., 1944.) 12*s.* 6*d.* net.

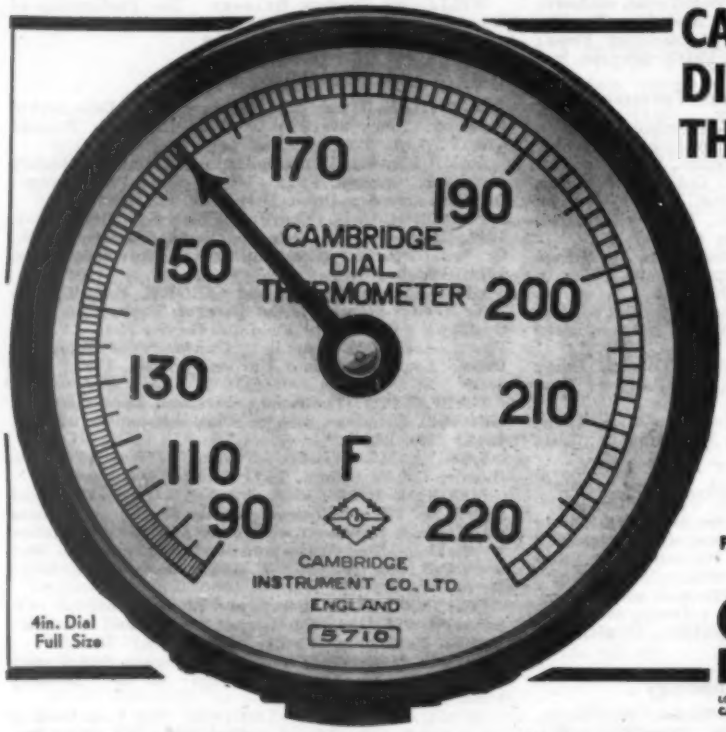
SOVIET WOMEN in the War against Hitlerism. Ex. Cr. 8vo. Pp. 76. (Moscow: Foreign Languages Publishing House, 1942.)*

STRONGER THAN DEATH: Short Stories of the War. Translated from the Russian by Elizabeth Donnelly. Gl. 8vo. Pp. 72. (Moscow: Foreign Languages Publishing House, 1942.)*

TOLSTOY, ALEXEI. Daredevils and other Stories. Translated from the Russian by D. L. Fromberg. Fcap. 8vo. Pp. 68. (Moscow: Foreign Languages Publishing House, 1942.)*

TOLSTOY, ALEXEI, and Others. We Carry On: Tales of the War. By A. Tolstoy, M. Sholokhov, V. Katayev, K. Simonov, S. Sergeyev-Tsenski, N. Tikhonov, L. Sobolev, V. Kozhevnikov, E. Petrov, B. Lavrenev, V. Lidin, P. Pavlenko, F. Panferov, I. Ehrenbourg. Translated from the Russian by D. L. Fromberg. Ex. Cr. 8vo. Pp. 172. (Moscow: Foreign Languages Publishing House, 1942.)*

WILLIAMS, REV. DR. A. T. P. The Churches in Britain. (Oxford Pamphlets on Home Affairs, No. H.8.) Cr. 8vo. Pp. 32. (London: Oxford University Press, 1944.) 6*d.* net.*



4in. Dial
Full Size

CAMBRIDGE DIAL THERMOMETERS

4-in. or 6-in. Dials

These robust and easy-to-read thermometers cover ranges from —10° F. to + 650° F. By adopting standard patterns and ranges the cost of manufacture has been reduced to a price which compares favourably with high-grade glass thermometers. They can be supplied with rigid stems, or with a length of flexible tubing, and may be either flush or wall mounted. By fitting adjustable contacts, they may be adapted for use as automatic regulators.

FULL DETAILS IN FOLDER 25-N

CAMBRIDGE INSTRUMENT CO. LTD.

WORKS:— LONDON & CAMBRIDGE *Head Office & Showrooms* :— 13 GROSVENOR PLACE LONDON, S.W. 1.

BRITISH PHARMACEUTICAL CODEX 1934

Upwards of 1,000 monographs are included, covering the whole field of therapeutics. In addition to particulars regarding the source, the chemical and physical properties or botanical characters of the substance concerned each monograph includes a section on action and uses compiled from the most authoritative information available. A separate formulary section contains formulæ for hundreds of preparations widely used in medicine. With the Supplements described below, the B.P.C. is an invaluable and indispensable source of reference which no pharmacist can afford to be without.

PRICE **40s.** POST FREE

Supplements to B.P.C. 1934:

Dressings Supplement. Additions to the Surgical Dressings in Part II of the B.P.C. 1934. (June, 1940.) **Price 2s.** *Postage* 2d.

Second Supplement. Part III—Formulary. Additions and Amendments to the formulæ in Part III of the B.P.C. 1934. (November, 1941.) **Price 2s. 6d.** *Postage* 2d.

Third Supplement. Part I—Monographs. Monographs additional to those in the B.P.C. 1934, and additions and corrections to the Trade Names. (February, 1942.) **Price 5s. 6d.** *Postage* 2d.

Fourth Supplement. Part I—Monographs. Amendments to the Monographs in the B.P.C. 1934. (May, 1942.) **Price 4s. 6d.** *Postage* 2d.

Fifth Supplement—Quinine Preparations and Cumulative Index. Amendments to the Formulary, together with additions and amendments to Monographs in Part I and Part II. (November, 1942.) **Price 2s. 6d.** *Postage* 2d.

Sixth Supplement. Additions and amendments to Parts I, II, III, including Monographs on Surgical Catgut. (January, 1944.) **Price 2s. 6d.** *Postage* 2d.

PRICE OF BRITISH PHARMACEUTICAL CODEX, 1934, COMPLETE WITH SIX SUPPLEMENTS

50s. POST FREE

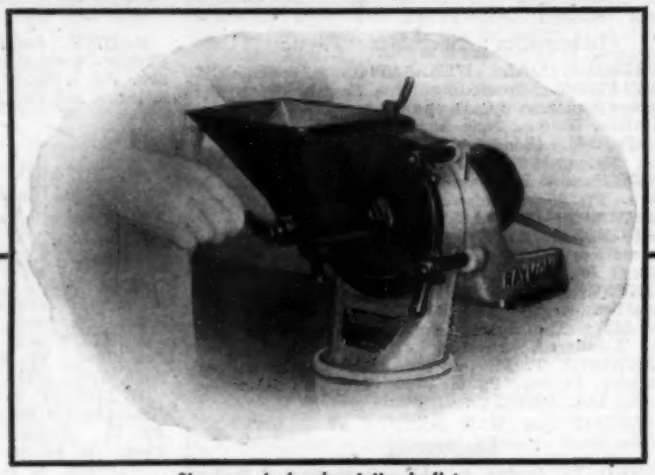
All Orders must be accompanied by Remittance

THE PHARMACEUTICAL PRESS, 17, Bloomsbury Sq., LONDON, W.C. 1

PRINTED IN GREAT BRITAIN BY FISHER, KNIGHT AND CO., LTD., ST. ALBANS

RAYMOND LABORATORY MILL

For rapid power comminution of a wide range of materials



The new Raymond Laboratory Mill has a rotor, power-driven by ½ h.p. motor at 10,500 r.p.m. Swing-out hammers rapidly reduce to fine powder coal, limestone, talc, dry colours, clays, minerals, alums, etc., etc. Sample automatically sieved and collected. Tube to filter out surplus air. Hand feed by worm and screw. Easy to erect, to run and to clean.

Please apply for descriptive leaflet

GRIFFIN and TATLOCK Ltd

LONDON Kemble St., W.C.2. MANCHESTER 19 Cheetham Hill Rd., 4 GLASGOW 45 Renfrew St., C.2. EDINBURGH 7 Teviot Place, 1.

Established as Scientific Instrument Makers in 1826

BOOKS

NEW SCIENTIFIC BOOKS

The large stock of English and Foreign Scientific books is arranged for easy inspection.
Please state interests when writing.
All usual Services are available.

SCIENTIFIC LENDING LIBRARY

The Library lends books on the Pure, Applied and Medical Sciences
Annual Subscription, Town or Country, from One Guinea.
Prospectus, with quarterly List of Additions, post free.

SECOND-HAND SCIENTIFIC BOOKS

Larger stock of *recent editions* of Medical and Scientific books offered at reduced prices. EARLY MEDICAL and SCIENTIFIC books available. *Address*: 140 GOWER STREET.

STATIONERY

for the Student and Research Worker. Drawing Instruments, Slide Rules, Logarithmic and Squared Papers, Microscope Slides, Cover Slips and Boxes.

H. K. LEWIS & Co. Ltd.
136 GOWER STREET, LONDON, W.C.1
Telephone: EUSton 4282 (5 lines)

MICROWAVE TRANSMISSION

By J. C. SLATER
Professor of Physics, Massachusetts Institute of Technology

309 pages, 9 × 6 75 illustrations, 24/6

This book deals with microwaves, electromagnetic waves in the wave length range from one meter to one centimeter, both from the standpoint of conventional transmission lines and of Maxwell's equations. It describes the general theory underlying the methods actually used for transmitting microwaves from point to point, from the generator in which they are produced to the receiver in which they are detected, with the intermediate stage of radiation from one antenna and absorption by another antenna.

Contents

- Transmission Lines
- Maxwell's Equations, Plane Waves, and Reflection
- Rectangular Wave Guides
- The General Transmission Line Problem
- Radiation from Antennas
- Directive Devices for Antennas
- Coupling of Coaxial Lines and Wave Guides

McGraw-Hill Publishing Co. Ltd.
Aldwych House, London, W.C.2

RECENT SCIENTIFIC and TECHNICAL BOOKS

Volumes marked with an asterisk (*) have been received at "NATURE" Office

Mathematics : Mechanics : Physics

BRITISH COAL UTILISATION RESEARCH ASSOCIATION. Proceedings of a Conference on the Ultra-fine Structure of Coals and Cokes, held at the Royal Institution, London, June 24th and 25th, 1943. Demy 8vo. Pp. 366. (London: H. K. Lewis and Co., Ltd., 1944.) 25s. net.*

LEES, HAROLD P. Elements of Aeroplane Hydraulics. Gl. 8vo. Pp. 96. (London: Hutchinson and Co. (Publishers), Ltd., 1944.) 2s. 6d. net.

MAHON, G. E., and ABBOTT, P. National Certificate Mathematics. Vol. 3. Fourth edition. Cr. 8vo. Pp. 356. (Bickley: English Universities Press, Ltd., 1944.) 7s. 6d.

WINTNER, AUREL. The Theory of Measure in Arithmetical Semi-Groups. Sup. Roy. 8vo. Pp. v+56. (Baltimore, Md.: The Author, Johns Hopkins University, 1944.) 2 dollars.*

YARWOOD, T. M. Introductory Magnetism and Electricity. Cr. 8vo. Pp. vii+159. (London: Macmillan and Co., Ltd., 1944.) 2s. 6d.*

Engineering

ASHKOUTI, JOSEPH A. Aircraft Mechanics' Pocket Manual. Cr. 8vo. Pp. 176. (London: Sir Isaac Pitman and Sons, Ltd., 1944.) 5s. net.

CARR, T. H. Electric Power Stations. Vol. 1. Second edition revised and enlarged. Demy 8vo. Pp. xii+507. (London: Chapman and Hall, Ltd., 1944.) 32s. net.*

"FACTUS". Wireless Amplifier Manual. Oblong Roy. 8vo. Pp. 72. (London: Bernards (Publishers), Ltd., 1944.) 2s. net.

HAZELL, W. Understanding Aero Engines by Question and Answer. New edition. Cr. 8vo. (Bickley: English Universities Press, Ltd., 1944.) 2s. 6d. net.

KEARTON, W. J. Steam Turbine Theory and Practice. Fourth revised edition. Demy 8vo. Pp. 600. (London: Sir Isaac Pitman and Sons, Ltd., 1944.) 30s. net.

RAPSON, E. T. A. Experimental Radio Engineering. Third edition. Demy 8vo. Pp. 176. (London: Sir Isaac Pitman and Sons, Ltd., 1944.) 8s. 6d. net.

WILLIAMS, D. S. D., and SMITH, J. M. The Oil Engine Manual. Third edition. Cr. 8vo. (London: Temple Press, Ltd., 1944.) 10s. 6d. net.

Chemistry : Chemical Industry

BEBIE, JULES. Manual of Explosives, Military Pyrotechnics and Chemical Warfare Agents: Composition, Properties, Uses. Ex. Cr. 8vo. Pp. xv+171. (New York: The Macmillan Company, 1943.) 12s. 6d. net.

BENNETT, H., Edited by. The Chemical Formulary, Vol. 6. Demy 8vo. Pp. xx+636. (Brooklyn, N.Y.: Chemical Publishing Co., Inc.; London: Chapman and Hall, Ltd., 1944.) 28s. net.

BRITISH PHARMACEUTICAL CODEX. Sixth Supplement to the British Pharmaceutical Codex, 1934. Additions and Amendments to Parts 1, 2 and 3. Demy 8vo. Pp. 34. (London: Pharmaceutical Press, 1944.) 2s. 6d.*

HEILBRON, I. M., and BUNBURY, H. M., Edited by. Dictionary of Organic Compounds: the Constitution and Physical and Chemical Properties of the Principal Carbon Compounds and their Derivatives, together with the Relevant Literature References. Cr. 4to. Vol. 2: Ecgonine—Myrtillin Chloride. Pp. viii+892. Vol. 3: Naphthacarbazole—Zygadenine. Pp. viii+978. (London: Eyre and Spottiswoode (Publishers), Ltd., 1943.) 126s. each Vol.*

REILLY, JOSEPH, and MOYNIHAN, EILEEN A. Quantitative Chemical Analysis: a Student's Handbook. Cr. 8vo. Pp. x+116. (Cork: Cork University Press, 1944.) 7s. 6d.*

REILLY, JOSEPH, and RAE, WILLIAM NORMAN. Physico-Chemical Methods. Fourth edition, revised. Roy. 8vo. Vol. 1. Pp. ix+610. Vol. 2. Pp. vii+586. (London: Methuen and Co., Ltd., 1943.) 2 vols., 84s. net.*

Technology

BLANDFORD, P. W. Practical Aircraft Rigging. 8vo. Pp. 80. (London: Hutchinson and Co. (Publishers), Ltd., 1944.) 2s. 6d. net.

CAMM, F. J. Dictionary of Metals and Alloys. Revised edition. Cr. 8vo. Pp. 176. (London: George Newnes, Ltd., 1944.) 10s. 6d. net.

COUZENS, E. G., and WEARMOUTH, W. G. Plastics in the Radio Industry. Cr. 8vo. Pp. 57. (London: Hulton Press, Ltd., 1944.) 2s. 6d. net.

FIELD, SAMUEL. The Principles of Electrodeposition. Demy 8vo. Pp. 314. (London: Sir Isaac Pitman and Sons, Ltd., 1944.) 25s. net.

HOLLIDAY, F. Calculations from Drawings: Graded Examples for Bench Fitters and Toolmakers. Cr. 8vo. Pp. 76. (London: Sir Isaac Pitman and Sons, Ltd., 1944.) 7s. 6d. net.

O'DARE, E. R. Carpenter's Handbook. (Key to Victory Series.) Cr. 8vo. Pp. 32. (London: Bernards (Publishers), Ltd., 1944.) 1s. 6d. net.

Geology : Mineralogy

FEARNSIDES, W. G., and BULMAN, O. M. B. Geology in the Service of Man. (Pelican Books, A.128.) Gl. 8vo. Pp. 158+8 plates. (Harmondsworth and New York: Penguin Books, Ltd., 1944.) 9d. net.*

PICARD, LEO. Structure and Evolution of Palestine: with Comparative Notes on Neighbouring Countries. (Bulletin of the Geological Department, Vol. 4, Nos. 2, 3, 4.) Med. 8vo. Pp. iv+134. (Jerusalem: Geological Department, Hebrew University, 1943.)*

Geography : Travel

FRANK, WALDO. South American Journey. Ex. Cr. 8vo. Pp. 215. (London: Victor Gollancz, Ltd., 1944.) 10s. 6d. net.

STEMBRIDGE, JASPER H. An Atlas of the British Empire: 20 Maps with Explanatory Text. (Oxford Pamphlets on World Affairs, No. 65.) Cr. 8vo. Pp. 40. (London: Oxford University Press, 1944.) 6d. net.*

TALBOT, GODFREY. Speaking from the Desert. Demy 8vo. Pp. 136. (London: Hutchinson and Co. (Publishers), Ltd., 1944.) 15s. net.

General Biology : Natural History
Botany : Zoology

BAWDEN, F. C. Plant Viruses and Virus Diseases. (A New Series of Plant Science Books, Vol. 13.) Second entirely revised edition. Sup. Roy. 8vo. Pp. xiv+294. (Waltham, Mass.: Chronica Botanica Company; London: Wm. Dawson and Sons, Ltd., 1943.) 4.75 dollars.*

BISHOP, SHERMAN C. Handbook of Salamanders: the Salamanders of the United States, of Canada, and of Lower California. Roy. 8vo. Pp. xiv+555. (Ithaca, N.Y.: Comstock Publishing Company, Inc., 1943.) 5 dollars.*

COPLEY, G. H. Wild Flowers and Weeds. Cr. 8vo. Pp. 44. (Bognor Regis: John Crowther, Ltd., 1944.) 8s. 6d. net.

GRIGSON, GEOFFREY. Wild Flowers in Britain. (Britain in Pictures Series.) Cr. 4to. Pp. 48+12 plates. (Glasgow and London: Wm. Collins, Sons and Co., Ltd., 1944.) 4s. 6d. net.

HARVEY, KATE, and LAY, E. J. S. Macmillan's Nature Class Pictures Reference Book. Demy 8vo. Pp. viii +277. (London: Macmillan and Co., Ltd., 1944.) 7s. 6d.

JOY, N. H. British Beetles: their Homes and Habits. New edition. Cr. 8vo. Pp. 143. (London and New York: Frederick Warne and Co., Ltd., 1944.) 7s. 6d. net.

NICHOLS, JOHN TREADWELL. The Fresh-Water Fishes of China. (Central Asiatic Expeditions: Natural History of Central Asia, Vol. 9.) Demy 4to. Pp. xxxvi + 322 +10 plates. (New York: American Museum of Natural History, 1943.) 9 dollars.*

PERCIVAL, J. Agricultural Botany: Theoretical and Practical. 8th edition. Cr. 8vo. Pp. 839. (London: Gerald Duckworth and Co., Ltd., 1944.) 18s. net.

SMITH, MALCOLM A. The Fauna of British India, Ceylon and Burma, including the whole of the Indo-Chinese Sub-Region. (Published under the patronage of the Secretary of State for India.) Edited by Lieut.-Colonel R. B. S. Sewell. Reptilia and Amphibia, Vol. 3: Serpentes. Med. 8vo. Pp. xii +584. (London: Taylor and Francis, Ltd., 1943.) 45s.*

STOKOE, W. J., Compiled by. The Caterpillars of the British Butterflies including the Eggs, Chrysalids and Food-Plants. Based upon 'The Butterflies of the British Isles', by Richard South. Edited and with Special Articles by G. H. T. Stovin. (Wayside and Woodland Series.) Gl. 8vo. Pp. 248 +32 plates. (London and New York: Frederick Warne and Co., Ltd., 1944.) 10s. 6d. net.*

Agriculture : Horticulture : Forestry

BOULTON, E. H. B., and JAY, B. ALWYN. British Timbers: their Properties, Uses and Identification; with Notes on the Growth and Cultivation of the Trees. Cr. 4to. Pp. 112 +31 plates. (London: Adam and Charles Black, Ltd., 1944.) 12s. 6d. net.*

CHEYNEY, EDWARD G. American Silvics and Silviculture. Med. 8vo. Pp. x +472. (Minneapolis: University of Minnesota Press; London: Oxford University Press, 1942.) 30s. net.*

FERREE, C. J. The Soya Bean and the New Soya Flour. Translated from the Dutch and revised by C. J. Ferree and O. T. Tussaud. New edition. Demy 8vo. Pp. xi +80. (London: William Heinemann, Ltd., 1944.) 3s. 6d. net.

MOORE, H. I. Ploughing for Pasture. (Britain Advances Series: Published for the British Council.) Demy 8vo. Pp. 32. (London, New York and Toronto: Longmans, Green and Co., Ltd., 1944.) 1s. net.

TAYLOR, M. W., and HARVEY, J. R. A Manual of Hen Keeping. Gl. 8vo. Pp. 52. (Bognor Regis: John Crowther, Ltd., 1944.) 2s. 6d. net.

Anatomy : Physiology

BACON, J. S. D. The Chemistry of Life: an Easy Outline of Biochemistry. (Thinker's Library, No. 103.) Fcap. 8vo. Pp. ix +118. (London: Watts and Co., Ltd., 1944.) 2s. 6d. net.*

Anthropology : Archæology

CHILDE, V. GORDON. Progress and Archæology. (Thinker's Library, No. 102.) Fcap. 8vo. Pp. vii +120. (London: Watts and Co., Ltd., 1944.) 2s. 6d. net.*

LLOYD, SETON. Ruined Cities of Iraq. Cr. 8vo. Pp. 120 +27 plates. (Bombay and London: Oxford University Press, 1944.) 3s. 6d. net.

MONTAGU, M. F. ASHLEY. Man's Most Dangerous Myth: the Fallacy of Race. Ex. Cr. 8vo. Pp. xii +216. (New York: Columbia University Press; London: Oxford University Press, 1942.) 15s. 6d. net.*

Philosophy : Psychology

COPELAND, N. Psychology and the Soldier: the Art of Leadership. Cr. 8vo. Pp. 96. (London: George Allen and Unwin, Ltd., 1944.) 5s. net.

DOLLARD, JOHN, MILLER, NEAL E., DOOB, LEONARD W., MOWRER, O. H., and SEARS, ROBERT R., in collaboration with Clellan S. Ford, Carl Iver Hovland and Richard T. Sollenberger. Frustration and Aggression. (International Library of Sociology and Social Reconstruction.) Demy 8vo. Pp. ix +150. (London: Kegan Paul and Co., Ltd., 1944.) 10s. 6d. net.*

FLEMING, C. M. The Social Psychology of Education: an Introduction and Guide to its Study. (International Library of Sociology and Social Reconstruction.) Demy 8vo. Pp. vii +110. (London: Kegan Paul and Co., Ltd., 1944.) 7s. 6d. net.*

FRY, MARGERY. The Future Treatment of the Adult Offender. (Published for the Howard League for Penal Reform.) Cr. 8vo. Pp. 32. (London: Victor Gollancz, Ltd., 1944.) 6d. net.*

LANGDON-BROWN, W. Early Phases of Medical Psychology. Demy 8vo. Pp. 71. (Rochford: C. W. Daniel Co., Ltd., 1944.) 2s. 6d. net.

MURRAY, GILBERT. Myths and Ethics: or, Humanism and the World's Need. (Conway Memorial Lecture delivered at Conway Hall, Red Lion Square, W.C.1, on March 19, 1944.) Fcap. 8vo. Pp. xii +32. (London: Watts and Co., Ltd., 1944.) Paper, 1s. net.*

Bacteriology : Hygiene

COOPER, L. F., BARBER, E. M., and MITCHELL, H. S. Nutrition in Health and Disease. Ninth edition. Demy 8vo. Pp. 716. (Philadelphia and London: J. B. Lippincott and Co., 1944.) 21s. net.

DREW, JOHN. Human Reproduction and Venereal Disease. Cr. 8vo. Pp. 124. (London: Faber and Faber, Ltd., 1944.) 3s. 6d. net.*

WHITBY, LIONEL ERNEST HOWARD. Medical Bacteriology. Fourth edition. Demy 8vo. Pp. 352. (London: J. and A. Churchill, Ltd., 1944.) 14s. net.

Miscellany

AGAR, W. E. Science and Human Welfare. (Realities of Reconstruction Series.) Cr. 8vo. Pp. 22. (Melbourne: Melbourne University Press; London: Oxford University Press, 1944.) 6d. net.

CUSHING, HARVEY. The Harvey Cushing Collection of Books and Manuscripts. (Publication No. 1, Historical Library, Yale Medical Library.) Imp. 8vo. Pp. xvi +207. (New York: Schuman's, 1943.) 8.50 dollars.*

CUSHING, HARVEY. A Bio-Bibliography of Andreas Vesalius. (Publication No. 6, Historical Library, Yale Medical Library.) Cr. 4to. Pp. xxxviii +230 +86 plates. (New York: Schuman's, 1943.) 15 dollars.*

DICKINSON, H. W., and VOWLES, H. P. James Watt and the Industrial Revolution. (Science in Britain Series: Published for the British Council.) Cr. 8vo. Pp. iv +60 +4 plates. (London, New York and Toronto: Longmans, Green and Co., Ltd., 1944.) 1s. net.*

DRUCE, GERALD. Two Czech Chemists: Bohuslav Brauner (1855–1935), Frantisek Wald (1861–1930). (Published for the Association of Czechoslovak Scientists and Technicians and the Czechoslovak Research Institute, London.) Demy 8vo. Pp. 67. (London: New Europe Publishing Co., Ltd., 1944.) 3s. 6d.*

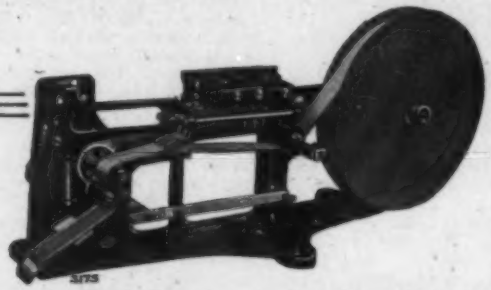
HARTOG, LADY. India in Outline. Cr. 8vo. Pp. xiii +110 +31 plates. (Cambridge: At the University Press, 1944.) 6s. net.*

LIBRARY ASSOCIATION. The Subject Index to Periodicals, 1942. Issued by the Library Association. Roy. 4to. Pp. xi +175. (London: Library Association, 1944.) 77s. net.*

MAJOR, REV. H. D. A. Basic Christianity: the World Religion. Fcap. 8vo. Pp. vii +71. (Oxford: Basil Blackwell, 1944.) 3s. 6d. net.*

RANDELL, W. L. S. Z. de Ferranti. (Science in Britain Series: Published for the British Council.) Cr. 8vo. Pp. vi +30 +4 plates. (London, New York and Toronto: Longmans, Green and Co., Ltd., 1943.) 1s. net.*

RENNER, H. D. The Origin of Food Habits. Demy 8vo. Pp. 261. (London: Faber and Faber, Ltd., 1944.) 15s. net.*



LABORATORY CHRONOGRAPH

This instrument may be used to record simultaneously the occurrence of any three events which can be arranged to make or break an electric circuit. Time signals at the rate of 50 per second can be recorded to an accuracy of 0·01 second. The Chronograph may be driven direct from a small electric motor, or a suitable speed reduction gear can be supplied. A six-pen Chronograph is also made.

Full details are in LEAFLET 26-N. May we send you a copy?

316

CAMBRIDGE
INSTRUMENT CO LTD

LONDON & CAMBRIDGE — Head Office & Showroom — 13 GROSVENOR PLACE LONDON, S.W.1

Co-ordination

Team work is the secret of combined operations and team work depends on uninterrupted inter-communication. That this factor can be so largely taken for granted in all conditions of service is a tribute to the technical supremacy of Marconi equipment. In every hemisphere, at every altitude and over all the seven seas it is sending and receiving vital messages at all hours of the day and night.

MARCONI

MARCONI'S WIRELESS TELEGRAPH COMPANY LIMITED. THE MARCONI INTERNATIONAL MARINE COMMUNICATION COMPANY LIMITED

ELECTRA HOUSE · VICTORIA EMBANKMENT · LONDON, W.C.2

PRINTED IN GREAT BRITAIN BY FISHER, KNIGHT AND CO., LTD., ST. ALBANS

GRAPHICAL CONSTRUCTIONS FOR VACUUM TUBE CIRCUITS

By ALBERT PREISMAN
Capitol Radio Engineering Institute

237 pages, 9 × 6, 125 illustrations, 19/-

The purpose of this significant new book is to treat non-linear circuit problems, particularly vacuum tube circuits, from the graphical point of view. This form of treatment is of value not only for the solution of actual problems, but also for instruction purposes, as it presents visually the mode of operation of the tube.

Contents

The Non-linear Circuit Problem	Reactive Loads
Thermionic Vacuum Tubes	Balanced Amplifiers
Elementary Graphical Constructions	Detection
	Miscellaneous Graphical Constructions

McGraw-Hill Publishing Co. Ltd.
Aldwych House, London, W.C.2

BOOKS

NEW SCIENTIFIC BOOKS

The large stock of English and Foreign Scientific books is arranged for easy inspection.
Please state interests when writing.
All usual Services are available.

SCIENTIFIC LENDING LIBRARY

The Library lends books on the Pure, Applied and Medical Sciences
Annual Subscription, Town or Country, from One Guinea.
Prospectus, with quarterly List of Additions, post free.

SECOND-HAND SCIENTIFIC BOOKS

Larger stock of *recent editions* of Medical and Scientific books offered at reduced prices. EARLY MEDICAL and SCIENTIFIC books available. *Address*: 140 GOWER STREET.

STATIONERY

for the Student and Research Worker. Drawing Instruments, Slide Rules, Logarithmic and Squared Papers, Microscope Slides, Cover Slips and Boxes.

H. K. LEWIS & Co. Ltd.
136 GOWER STREET, LONDON, W.C.1
Telephone: EUSton 4282 (5 lines)

ARNOLD BOOKS

Geology for Engineers

By **F. G. H. BLYTH, M.Sc., F.G.S.**, Lecturer in Engineering Geology, Imperial College of Science and Technology, London. viii + 302 pages, 141 illustrations and 16 plates. 21s. net.

"No book, of like size, could be expected to provide for engineers a better or more comprehensive exposition of geology and its application to engineering."
—*The Surveyor.*

LAKE & RASTALL'S
Text-Book of Geology

Fifth Edition, revised by **R. H. RASTALL, Sc.D., F.G.S.**, Fellow of Christ's College and formerly Lecturer in Economic Geology in the University of Cambridge. viii + 492 pages, 129 text illustrations and 56 photographs. 25s. net.

"A clearly written and well-balanced introduction to geology . . . the variety of topics dealt with is very striking: there are few general problems in geology which are not touched upon."—*Geological Magazine.*

Geological and Topographical Maps

Their Interpretation and Use. By the late **A. R. DWERRYHOUSE, D.Sc., F.G.S.**, Lecturer in Geology, Reading University. **Second Edition.** vii + 133 pages, 90 illustrations. 6s. net.

Road Aggregates

Their Uses and Testing. By **B. H. KNIGHT, D.Sc., A.M.Inst.C.E.** x + 264 pages, 112 illustrations. 21s. net.

"A book which should be in the hands of everyone who has to deal with the choice and use of the commoner materials of highway construction."—*Journal of the Institution of Municipal and County Engineers.*

The Geology of Ore Deposits

By the late **H. H. THOMAS, M.A., B.Sc.**, and **D. A. MacALISTER, R.S.M.** xii + 416 pages and 65 illustrations. 8s. 6d. net.

A Study of the Oceans

By the late **JAMES JOHNSTONE, D.Sc.** **Second Edition.** viii + 235 pages, 44 illustrations. 10s. 6d. net.

The Economics of Rail Transport in Great Britain

By **C. E. R. SHERRINGTON, M.A., A.M.Inst.T.**, Railway Research Service. With a Foreword by **Sir GUY GRANET.** In 2 volumes, obtainable separately, 12s. 6d. net each. Vol. I: **History and Development**, xii + 283 pages; Vol. II: **Rates and Service, Second Edition**, xvi + 336 pages.

"The most important work ever published on rail transport economics in Great Britain."—*Railway Gazette.*

Road Traffic and Its Control

By **H. ALKER TRIPP, C.B.E.**, Assistant Commissioner of Police, Scotland Yard. xvi + 414 pages, 115 illustrations. Vol. VII of **The Roadmakers' Library.** 26s. net.

EDWARD ARNOLD & CO.
41 & 43, MADDOX ST., LONDON, W.1

RECENT SCIENTIFIC and TECHNICAL BOOKS

Volumes marked with an asterisk (*) have been received at "NATURE" Office

Mathematics : Mechanics : Physics

ABBOTT, P., and MAHON, G. E. National Certificate Mathematics. Vol. 3. New edition. Cr. 8vo. Pp. 356. (Bickley: English Universities Press, Ltd., 1944.) 7*s*. 6*d*. net.

BUERGER, M. J. X-Ray Crystallography: an Introduction to the Investigation of Crystals by their Diffraction of Monochromatic X-Radiation. Med. 8vo. Pp. xxii +531. (New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1942.) 6.50 dollars.*

CATCHPOOL, EDMUND, and SATTERLY, JOHN. Textbook of Sound. Revised by C. T. Archer. Sixth edition. Demy 8vo. Pp. iv +360. (London: University Tutorial Press, Ltd., 1944.) 8*s*.*

HEITLER, W. Elementary Wave Mechanics: Introductory Course of Lectures. Notes taken and prepared by W. S. E. Hickson. (Hectographed.) Cr. 4to. Pp. ii +88. (Dublin: Dublin Institute for Advanced Studies, 1943.) 5*s*.*

Engineering

FOWLER, W. H., Edited by. Mechanical Engineer's Pocket Book, 1944. Cr. 32mo. Pp. 600. (Manchester: Scientific Publishing Co., 1944.) 4*s*. net.

HIGGINS, ARTHUR LOVAT. Higher Surveying. Med. 8vo. Pp. viii +463. (London: Macmillan and Co., Ltd., 1944.) 25*s*. net.*

MARCUS, ABRAHAM, and MARCUS, WILLIAM. Elements of Radio. Prepared under the editorship of Ralph E. Horton. Complete edition. Med. 8vo. Pp. xiii +699. (London: George Allen and Unwin, Ltd., 1943.) 27*s*. 6*d*. net.

MOLLOY, E. Electric Motors. (Questions and Answers Series.) Fcap. 8vo. Pp. 128. (London: George Newnes, Ltd., 1944.) 5*s*. net.

MOLLOY, E. Radio. (Questions and Answers Series.) Fcap. 8vo. Pp. 128. (London: George Newnes, Ltd., 1944.) 5*s*. net.

PERKINS, W. T. Telecommunications. Cr. 8vo. Pp. 320. (London: George Newnes, Ltd., 1944.) 12*s*. 6*d*. net.

'RADIOTRICIAN'. Modern Radio Test Gear Construction. Cr. 8vo. Pp. 32. (London: Bernards (Publishers), Ltd., 1944.) 1*s*. 6*d*. net.

Chemistry : Chemical Industry

ATACK, F. W. The Chemists' Year Book, 1944. Edited by E. Hope. Fcap. 8vo. Pp. 1256. (Manchester: Sherratt and Hughes, Ltd., 1944.) 30*s*. net.

CHATFIELD, H. W. Varnish Constituents. Demy 8vo. Pp. xvi +496 +12 plates. (London: Leonard Hill, Ltd., 1944.) 35*s*.*

DICKINSON, DENIS. The Chemical Analysis of Waters, Boiler- and Feed-Waters, Sewage, and Effluents. (Blackie's 'Technique' Series.) Cr. 8vo. Pp. xii +140. (London, Glasgow and Bombay: Blackie and Son, Ltd., 1944.) 6*s*. net.*

DREHER, EMIL. The Chemistry of Synthetic Substances. Translated by Marion Lee Taylor. Demy 8vo. Pp. 103. (New York: Philosophical Library, Inc., 1943.) 3 dollars.*

POST, H. W. The Chemistry of Aliphatic Orthoesters. Demy 8vo. Pp. 192. (New York: Reinhold Publishing Corporation; London: Chapman and Hall, Ltd., 1944.) 24*s*. net.

SMITH, SYLVANUS J. Principles of Organic Chemistry. Demy 8vo. Pp. viii +570. (London: Macmillan and Co., Ltd., 1944.) 15*s*.*

WINCHELL, ALEXANDER N. The Optical Properties of Organic Compounds. Sup. Roy. 8vo. Pp. xiii +342. (Madison, Wis.: University of Wisconsin Press, 1943.) 5 dollars.*

Technology

BAEZA, W. J. A Course in Powder Metallurgy. Demy 8vo. Pp. 212. (New York: Reinhold Publishing Corporation; London: Chapman and Hall, Ltd., 1944.) 21*s*. net.

COOTE, JACK H. Making Colour Prints. New edition. Cr. 8vo. Pp. 128. (London and New York: Focal Press, Ltd., 1944.) 6*s*. net.

DEARLE, D. A. Plastic Moulding. Cr. 8vo. Pp. 104. (London: Hutchinson and Co. (Publishers), Ltd., 1944.) 6*s*. net.

FRERK, F. W. All about Focusing. (Photo Guides Series.) New edition. Fcap. 8vo. Pp. 56. (London and New York: Focal Press, Ltd., 1944.) 1*s*. 6*d*. net.

GATES, P. Jigs, Tools and Fixtures. Third revised edition. Demy 8vo. Pp. 256. (Kingston Hill: Technical Press, Ltd., 1944.) 14*s*. net.

MOLLOY, E. Lathework. (Questions and Answers Series.) Fcap. 8vo. Pp. 128. (London: George Newnes, Ltd., 1944.) 5*s*. net.

NELSON, J. H., and SILMAN, H. The Application of Radiant Heat to Metal Finishing: a Critical Survey of the 'Infra-red' Process for the Stoving of Paints and Enamels. Demy 8vo. Pp. viii +79. (London: Chapman and Hall, Ltd., 1944.) 8*s*. 6*d*. net.*

NURNBERG, WALTER. Lighting for Photography. Fourth edition. Cr. 4to. Pp. 176. (London and New York: Focal Press, Ltd., 1944.) 12*s*. 6*d*. net.

SMITH, EDWIN. All about Sunshine. (Photo Guides Series.) New edition. Fcap. 8vo. Pp. 56. (London and New York: Focal Press, Ltd., 1944.) 1*s*. 6*d*. net.

TOWN, H. C. Jig and Fixture Practice. Demy 8vo. Pp. 120. (London: Paul Elek (Publishers), Ltd., 1944.) 10*s*. 6*d*. net.

VINING, LANCELOT. My Way with the Miniature. Fourth edition. Cr. 8vo. Pp. 260. (London and New York: Focal Press, Ltd., 1944.) 13*s*. 6*d*. net.

WADENOYEN, H. VAN. All about Landscapes. (Photo Guides Series.) New edition. Fcap. 8vo. Pp. 56. (London and New York: Focal Press, Ltd., 1944.) 1*s*. 6*d*. net.

WADENOYEN, H. VAN. All about One Lamp Only. (Photo Guides Series.) New edition. Fcap. 8vo. Pp. 56. (London and New York: Focal Press, Ltd., 1944.) 1*s*. 6*d*. net.

Astronomy

JEANS, SIR JAMES. The Universe Around Us. Fourth edition, revised and reset. Demy 8vo. Pp. x +297 +32 plates. (Cambridge: At the University Press, 1944.) 15*s*. net.*

LESTER, LIEUT.-COLONEL R. M. Practical Astronomy for the Forces. Fcap. 8vo. Pp. 82. (London, New York and Melbourne: Hutchinson's Scientific and Technical Publications, 1944.) 2*s*. 6*d*. net.*

Meteorology : Geophysics

"AEOLUS". Teach Yourself Meteorology. Gl. 8vo. Pp. 142. (Bickley: English Universities Press, Ltd., 1944.) 3*s*. net.

LESTER, LIEUT.-COLONEL R. M. Meteorology. (Complete Air Training Course, No. 4.) Fcap. 8vo. Pp. 64 +4 plates. (London, New York and Melbourne: Hutchinson's Scientific and Technical Publications, 1944.) 2*s*. 6*d*. net.*

General Biology : Natural History
Botany : Zoology

BENCHLEY, BELLE J. My Friends, the Apes. Demy 8vo. Pp. 234 +12 plates. (London: Faber and Faber, Ltd., 1944.) 12*s*. 6*d*. net.*

BLYTON, ENID. Nature Lover's Book. Cr. 4to. Pp. 256 +15 plates. (London: Evans Brothers, Ltd., 1944.) 15s. net.*

DEVAS, FATHER RAYMOND P. Birds of Grenada and St. Vincent and the Grenadines (British West Indies): How to Identify Them, When and Where to Look for Them. Cr. 8vo. Pp. xi +64 +3 plates. (Oxford: B. H. Blackwell, Ltd., 1944.) 4s. 6d.*

GROVE, A. J., and NEWELL, G. E. Animal Biology. Second edition. Demy 8vo. Pp. viii +678. (London: University Tutorial Press, Ltd., 1944.) 16s.*

HUXLEY, J. S., WELLS, H. G., HALDANE, J. B. S., OGG, W. G., DRUMMOND, Sir J. C., and CRICK, W. F., MUNRO, J. W., and FISHER, J., KAUNTZE, W. H., WITTS, L. J., EDGE, MAJOR P. G., MACKINTOSH, J. M., and APPLETON, SIR E. V. Reshaping Man's Heritage: Biology in the Service of Man. Cr. 8vo. Pp. 96 +7 plates. (London: George Allen and Unwin, Ltd., 1944.) 5s. net.*

OGLE, R. Wild Life of the World. Cr. 4to. Pp. 64. (London: Gawthorn, 1944.) 7s. 6d. net.

PIKE, OLIVER G. Nature and Camera. Third edition. Cr. 8vo. Pp. 264. (London and New York: Focal Press, Ltd., 1944.) 13s. 6d. net.

RUPP, REV. H. M. R. The Orchids of New South Wales. Roy. 8vo. Pp. xv +152. (Sydney: National Herbarium. Botanic Gardens, 1943.) 9s. net.*

Agriculture : Horticulture : Forestry

BAKER, RICHARD ST. BARBE. The Redwoods. Cr 4to. Pp. 96 +40 plates. (London: Lindsay Drummond, Ltd., 1943.) 10s. 6d. net.

MAKINGS, S. M. The Economics of Poor Land Arable Farming: Based on Surveys of Difficult Farming Areas in the East Midlands. Demy 8vo. Pp. viii +280. (London: Edward Arnold and Co., 1944.) 18s. net.*

SCHOFIELD, A. NORMAN. Teach Yourself Bee-Keeping. Gl. 8vo. Pp. 148. (Bickley: English Universities Press, Ltd., 1944.) 3s. net.

WEBBER, H. J., and BATCHELOR, L. D., Edited by. The Citrus Industry. Vol. 1: History, Botany and Breeding. Demy 8vo. Pp. x +1028. (Berkeley and Los Angeles, Calif.: University of California Press; London: Cambridge University Press, 1944.) 45s. net.

Anatomy : Physiology

FULTON, JOHN FARQUHAR. Physiology of the Nervous System. Second revised edition. Med. 8vo. Pp. 624. (New York and London: Oxford University Press, 1944.) 38s. net.

JONES, FREDERICK WOOD. Structure and Function as seen in the Foot. Demy 8vo. Pp. 336. (London: Baillière, Tindall and Cox, 1944.) 25s. net.

KAY, H. D. Milk: National Food No. 1. (Britain Advances Series: Published for the British Council.) Demy 8vo. Pp. 32. (London, New York and Toronto: Longmans, Green and Co., Ltd., 1944.) 1s. net.

NORTON, F. Anatomy and Physiology for Junior Nurses. Sixth edition. Cr. 8vo. Pp. 98. (London: Faber and Faber, Ltd., 1944.) 3s. 6d. net.

SHERMAN, HENRY C., and LANFORD, CAROLINE SHERMAN. An Introduction to Foods and Nutrition. Ex. Cr. 8vo. Pp. ix +292. (New York: The Macmillan Company, 1943.) 10s. net.

STERN, KURT, and WILLHEIM, ROBERT. The Biochemistry of Malignant Tumors. Demy 8vo. Pp. xiv +951. (London: Macmillan and Co., Ltd., 1943.) 60s. net.*

Anthropology : Archæology

ODUM, HOWARD W. Race and Rumors of Race: Challenge to American Crisis. Ex. Cr. 8vo. Pp. x +245. (Chapel Hill, N.C.: University of North Carolina Press; London: Oxford University Press, 1943.) 12s. net.*

Philosophy : Psychology

BRUMWELL, J. R. M., Edited by. This Changing World: a Series of Contributions by some of our Leading Thinkers, to Cast Light upon the Pattern of the Modern World. Demy 8vo. Pp. vi +286 +12 plates. (London: George Routledge and Sons, Ltd., 1944.) 12s. 6d. net.*

BUCK, P. C. Psychology for Musicians. Demy 8vo. Pp. 124. (London: Oxford University Press, 1944.) 7s. 6d. net.

BURT, CYRIL. The Young Delinquent. Vol. 1: The Sub-Normal School Child. Fourth revised edition. Demy 8vo. (Bickley: University of London Press, Ltd., 1944.) 21s. net.

FREED, LAN. Morality and Happiness. Cr. 8vo. Pp. 80. (London: Williams and Norgate, Ltd., 1944.) 5s. net.*

MYERS, H. A. The Spinoza-Hegel Paradox. Demy 8vo. Pp. 110. (Ithaca, N.Y.: Cornell University Press; London: Oxford University Press, 1944.) 10s. 6d. net.

SHELDON, WILMAN H. America's Progressive Philosophy. Demy 8vo. Pp. 242. (New Haven, Conn.: Yale University Press; London: Oxford University Press, 1944.) 20s. net.

STANFORD SCHOOL OF HUMANITIES. The Humanities Look Ahead. Report of the First Annual Conference held by the Stanford School of Humanities, 'The Humanities in the War and Postwar World', May 7 and 8, 1943. Med. 8vo. Pp. ix +149. (Stanford University, Calif.: Stanford University Press; London: Oxford University Press, 1943.) 10s. 6d. net.*

TSANOFF, R. A. The Moral Ideas of our Civilisation. Med. 8vo. Pp. 636. (London: George Allen and Unwin, Ltd., 1944.) 30s. net.

Bacteriology : Hygiene

HUFF, CLAY G. A Manual of Medical Parasitology. Roy. 8vo. Pp. x +88 +10 plates. (Chicago: University of Chicago Press; London: Cambridge University Press, 1944.) 9s. net.

ROSEN, GEORGE. The History of Miners' Diseases: a Medical and Social Interpretation. Roy. 8vo. Pp. xii +490 +17 plates. (New York: Schuman's, 1943.) 8.50 dollars.*

WHITBY, L. E. H. The Nurse's Handbook of Hygiene. Seventh revised edition. Cr. 8vo. Pp. 186. (London: Faber and Faber, Ltd., 1944.) 5s. net.

Miscellany

BAITSELL, GEORGE A., Edited by. Science in Progress. By Harlow Shapley, Edwin Hubble, Hans A. Bethe, V. K. Zworykin, P. W. Bridgman, Lionel S. Marks, James Franck, John G. Kirkwood, Perrin H. Long, Hermann Mark. (Society of the Sigma XI devoted to the Promotion of Research in Science: National Lectureships 1941 and 1942.) Third Series. Roy. 8vo. Pp. xv +322. (New Haven, Conn.: Yale University Press; London: Oxford University Press, 1942.) 20s. net.*

CANN, A. W. Essential Science for Candidates for Apprenticeships. Cr. 8vo. Pp. 142. (Huddersfield: Schofield and Sims, Ltd., 1944.) 3s. 6d.

EDGEWORTH, LIEUT.-COLONEL K. E. Unemployment Can be Cured. Cr. 8vo. Pp. 158. (Dublin: Eason and Son, Ltd.; London: Simpkin Marshall, Ltd., 1944.) 10s. 6d.*

NEWTON. Isaac Newton, 1643–1943. (In Russian.) Fcap. 8vo. Pp. 82 +4 plates. (Kazan: Kazan Aviation Institute, 1943.) 10 roubles.*

ROSE, H. J. Ralph Ranulph Marett, 1866–1943. (From the *Proceedings of the British Academy*, Vol. 29.) Roy. 8vo. Pp. 16. (London: Oxford University Press, 1944.) 2s. net.*

WELLS, H. G. '42 to '44: a Contemporary Memoir upon Human Behaviour during the Crisis of the World Revolution. Demy 8vo. Pp. 212. (London: Martin Secker and Warburg, Ltd., 1944.) 42s. net.*

Details of an extra-sensitive pattern and of an illuminated moving scale Fluxmeter readable at a distance, also sent on request.

6312

CAMBRIDGE FLUXMETER

IMPROVED PATTERN

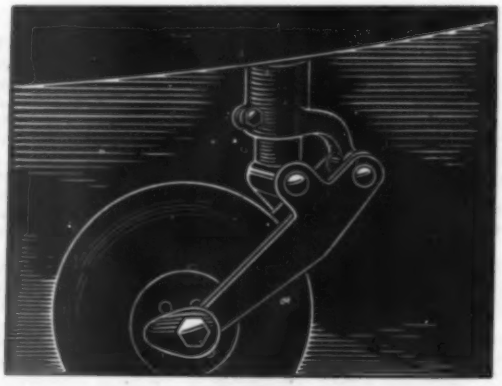
In this instrument the readings are practically independent of the rate of cutting the magnetic lines of force, the drift of the pointer has been entirely eliminated, and readings may be taken with great facility and rapidity. The scale is approximately 150 mm. long, divided 60-0-60, each division representing 10,000 Maxwell turns.

PLEASE ASK FOR LIST No. 371-N

CAMBRIDGE INSTRUMENT CO. LTD.

WORKS:— LONDON & CAMBRIDGE — Head Office & Showrooms:— 13 GROSVENOR PLACE LONDON, S.W.1.

HERE WAS A PROBLEM



A fabric plastic bush required to be lubricated. Oil and grease were, of course, unsuitable, in addition to which a wide range of temperatures had to be withstood. The answer to the problem was a thin, adherent, slippery film formed with "dag" colloidal graphite in acetone. It was extremely simple; it was highly efficient.

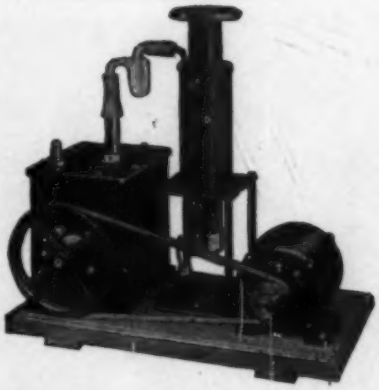
E. G. ACHESON LTD.
9, Gayfere St. Westminster, London. S.W.1.

"dag" COLLOIDAL GRAPHITE

PRINTED IN GREAT BRITAIN BY FISHER, KNIGHT AND CO., LTD., ST. ALBANS

EDWARDS

Combined Vacuum Units



FOR work requiring very high pumping speeds and extremely low ultimate pressures we supply combined units consisting of rotary and diffusion pumps. These units are built to suit the individual requirements of the proposed work. Their widest use is for special industrial applications such as discharge and thermionic devices but they are adaptable to most research and development problems.

Write for details

W. Edwards & Co. (London) Ltd.

Makers of Apparatus for the Production, Utilisation and Measurement of High Vacuum

KANGLEY BRIDGE ROAD, LOWER SYDENHAM, LONDON, S.E.26

Telephone: SYDenham 7026 *Telegrams:* Edcohivac, Phone, London

A NEW PORTABLE ANEMOMETER

7 × 10½ in.
Carrying Case,
12 × 9 × 4 in.

SPECIAL FEATURES:

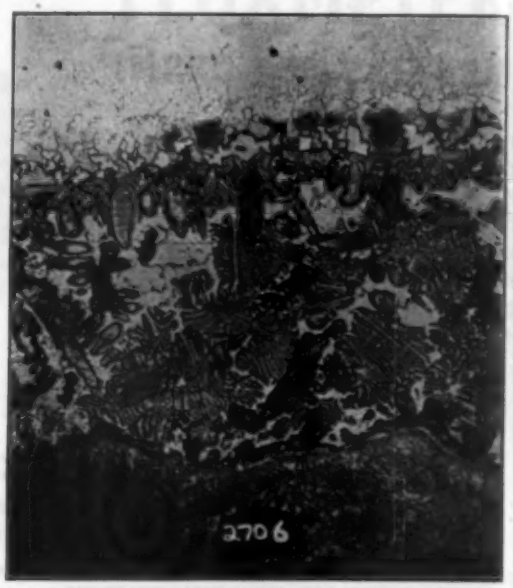
1 Extremely sensitive, reads to 15 ft./min.
2 Large range, 15 to 5000 ft./min.
3 Corrections constant over the whole range.
4 Robust construction.

Price, in carrying case, £13 10 0, + packing & insurance 2/-

Full particulars from:

C. F. CASELLA & CO. LTD,
Regent House, Fitzroy Square,
LONDON, W.1

FOR PHOTOGRAPHY IN RESEARCH



Section across junction of high-speed steel tip and plain carbon steel tool shank using Stalweld Powder as bonding material. (x 500)
Taken on 'Wratten' Metallographic plate through a yellow filter.

For many of the applications of photography in research or in industrial techniques the requisite sensitive material is to be found in the standard range of 'Kodak' plates. The following table, for example, summarises the recommendations made in the Kodak Data Book of Applied Photography.

For photo-micrography: 'Kodak' plates B.5—B.10—B.20—B.40—O.120—P.25—P.150—P.500—P.1200—'Wratten' Metallographic (according to type of subject).

For spectrography: 'Kodak' plates B.5—B.10—B.20—O.120—P.150—I.R.ER (according to portion of spectrum and intensity involved).

For photometry and spectrophotometry: 'Kodak' plates B.5—B.10—B.40—P.150—P.500.

For recording: 'Kodak' plates B.5—B.40—O.800—P.25—P.1200.

For infra-red Photography: 'Kodak' plates I.R.ER.

For graticules or X-ray micrography: 'Kodak' Maximum Resolution plates.

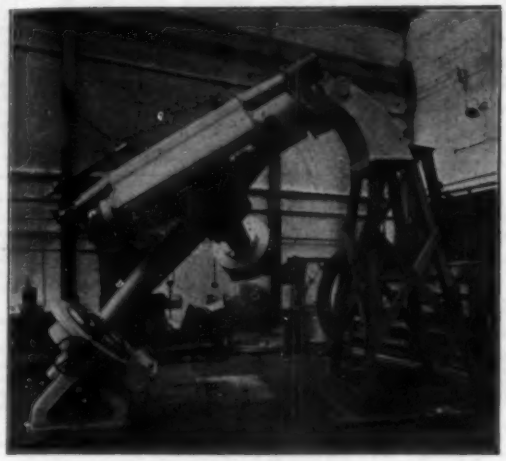
The above-named varieties of plates can normally be supplied from stock. In addition, for particular scientific purposes, not covered by standard products, the Kodak Research Laboratories can supply any of the special range of 'Kodak' Plates for Scientific Purposes: these provide a wide diversity of colour sensitisings in emulsions of differing speed and contrast. They are, however, made to special order only and do not permit of immediate supply. For further information refer to the Kodak Data Book.

B.5 Slow Process. B.10 'Photoscript.' B.20 Process. B.40 Commercial Fine Grain Regular. O.120 Commercial Orthochromatic. O.800 Ultra Speed Ortho. P.25 Halftone Panchromatic ('Wratten'). P.150 Rapid Process Panchromatic ('Wratten'). P.500 Rapid Commercial Panchromatic ('Wratten'). P.1200 Super Panchro Press.

KODAK LIMITED, KODAK HOUSE, KINGSWAY, LONDON, W.C. 2

SIR HOWARD GRUBB, PARSONS & COMPANY

Incorporating the business of Astronomical Instruments and Observatory Equipment hitherto carried on by Messrs. Cooke, Troughton & Simms, Ltd., of York



33 cm. Astrographic Telescope with 25 cm. Guider

Contractors for

COMPLETE OBSERVATORY EQUIPMENT

Standard Products:

Astronomical Telescopes
Object Glasses — Mirrors
Prisms — Spectrographs
Coelostats — Chronographs
Revolving Domes — Rising Floors
Etc.

OPTICAL WORKS,
NEWCASTLE-UPON-TYNE, ENGLAND

The Policy for Children

£12 a year invested for a child will provide benefits at age 18, 21, or 25. The investment may be made by a parent or friend.

e.g. If the investment is begun within two months of birth it will provide, at age 21, £323 in cash, or a life policy for £1,656.

The Equitable Life Assurance Society

(founded 1762)

19, Coleman Street, London, E.C.2

No shareholders — No commission

INSTITUTE OF METALS MONOGRAPH AND REPORT SERIES

The Structure of Metals and Alloys

by
WILLIAM HUME-ROTHERY, M.A., D.Sc., F.R.S.
Third, revised, reprint just published.
Demy 8vo. Pp. 137, illustrated. **4s. 6d.** post free.
An elementary account, reviewing the important developments of the last 25 years.

Bibliography of the Literature Relating to Constitutional Diagrams of Alloys

by J. L. HAUGHTON, D.Sc.
Published October, 1942.
Demy 8vo. Pp. 163. **3s. 6d.** post free.
Contains over 5,000 references to the constitution of binary, ternary, and higher alloy systems.

Supplement No. I to the Bibliography

Just published.
Demy 8vo. Pp. 16. **9d.** post free.
Contains nearly 200 further references to recent work.

THE INSTITUTE OF METALS
4 GROSVENOR GARDENS, LONDON, S.W.1

The vacancies advertised in these columns are available only to applicants to whom the Employment of Women (Control of Engagement) Orders, 1942-3, do not apply.

MURDOCH TRUST

For the BENEFIT of INDIGENT BACHELORS and WIDOWERS of good character, over 55 years of age, who have done "something" in the way of promoting or helping some branch of Science.

Donations or Pensions may be granted to persons who comply with these conditions.

For particulars apply to MESSRS. SHEPHERD & WEDDERBURN, W.S., 16 Charlotte Square, Edinburgh, 2.

ESSEX EDUCATION COMMITTEE

South-East Essex Technical College and School of Art, Longbridge Road, Dagenham.

Principal: N. M. H. Lightfoot, M.A., F.R.S.E.

Applications are invited for the following permanent post for September next:

SCIENCE DEPARTMENT

A full-time Lecturer in Chemistry. Candidates should possess good honours degree in Chemistry and have had some experience in teaching Chemistry to B.Sc. Honours standard. Research or industrial experience also desirable. Knowledge of metallurgy would be regarded as an additional qualification. Salary: Burnham (Provincial) Scale.

Further particulars and forms of application obtainable from the Clerk to the Governors at the College, on receipt of a stamped addressed envelope. Applications, together with copies of two recent testimonials, must be sent to the Clerk to the Governors not later than July 3, 1944.

B. E. LAWRENCE,
Chief Education Officer.

County Offices,
Chelmsford.

THE ROYAL CANCER HOSPITAL (FREE)

Fulham Road, London, S.W.3.

Applications are invited for the post of Assistant Physicist in the Physics Department of the above Hospital. Applicants should preferably have had some experience of radiological physics, and, if appointed, will be expected to take part in the routine, research, and teaching work of the Department. Commencing salary £400 per annum (superannuable).

Applications, which must be received not later than July 1, 1944, should be addressed to the Secretary of the Royal Cancer Hospital (Free), from whom further details may be obtained.

UNIVERSITY COLLEGE OF WALES, ABERYSTWYTH

Applications are invited for the newly established Research Professorship in Animal Health. The appointment will be for a period not exceeding 10 years in the first instance at a salary of £1,200, with superannuation contribution. While the subject is defined broadly as being a study of the causes and conditions of animal health and includes animal breeding, animal nutrition, and the prevention and control of animal diseases, it is expected that the Research Professor, when appointed, will work in close conjunction with the Welsh Plant Breeding Station established at the College. Further information may be obtained from the Principal.

THE WEST OF SCOTLAND AGRICULTURAL COLLEGE

The Governors invite applications for the post of VETERINARY SURGEON, mainly with a view to research on bovine mastitis.

Salary, £450 per annum plus appropriate war bonus.

Applications, stating age, training (degrees or diplomas held), and experience, should be lodged with the undersigned not later than June 30, 1944.

A. J. WILSON,
Secretary.

6 Blythswood Square,
Glasgow.

UNIVERSITY OF BIRMINGHAM

ANGLO-AMERICAN STUDENTSHIPS

Studentships of the value of £225 for the first year and £150 for the second year, if renewed, are offered to graduates in Science. Holders will be expected to devote full time to Research in the Department of Oil Engineering and Refining.

Applications, which should give detail's of age, academic qualifications, and career, should be submitted to the Registrar not later than July 15. Names of two referees should also be given.

THE ROYAL INSTITUTE OF CHEMISTRY

In view of the approaching retirement of the Registrar and Secretary (Mr. R. B. Pilcher, O.B.E.), the Council of the Royal Institute of Chemistry will shortly appoint a Secretary, who should be a Chemist of standing, with administrative ability. Salary not less than £1,500 p.a. Any Chemist wishing to be considered for this appointment is invited to send his name, in confidence, to Professor A. Findlay, Pres. R.I.C., 30 Russell Square, London, W.C.1.

UNIVERSITY OF OTAGO, DUNEDIN, NEW ZEALAND

DIRECTOR OF SCHOOL OF MINES

Applications are invited for the position of Director of the Otago School of Mines. Candidates must be qualified to teach either mining or metallurgy. Salary £1,000 per annum (New Zealand currency).

For further particulars apply, not later than July 21, to the High Commissioner for New Zealand, 415 Strand, London, W.C.2.

THE UNIVERSITY OF SHEFFIELD

The Council of the University invite applications for the post of LECTURER IN EXPERIMENTAL PHYSIOLOGY.

Basic salary £600 per annum, plus substantial wartime allowances.

The successful candidate will be expected to enter upon his duties on October 2, 1944.

Applications should reach the undersigned (from whom further particulars may be obtained) by July 28.

W. M. GIBBONS,
Registrar.

ROYAL HOLLOWAY COLLEGE

(University of London)

Appointment of ASSISTANT LECTURER and DEMONSTRATOR IN ZOOLOGY

The Governors invite applications for the above post, which is resident and open to women only. Applications are required not later than July 15, 1944.—Full particulars may be obtained from the Principal, Royal Holloway College, Englefield Green, Surrey.

UNIVERSITY COLLEGE OF HULL

Applications are invited for a Temporary Lecturer in Geography. Salary up to £400, according to qualifications and experience. Particulars of the appointment may be obtained from the Registrar, to whom applications must be sent not later than June 28.

Midlands firm, engaged under Essential Works Order on medicinal and fine chemical production, requires Process Chemists. Commencing Salary £300-£350. Good experience and excellent prospects for young chemists with industrial bias. Must be prepared to work one week in three at night as control chemist during first contract period.—Apply, Box 205, T. G. Scott & Son, Ltd., 9 Arundel Street, London, W.C.2.

International Chemical Co. Ltd. have a vacancy for a process chemist, up to B.Sc. standard, with some pharmaceutical and plant experience if possible.—Write, Personnel Officer, Braydon Road, London, N.16.

A large firm of Paper Manufacturers requires (a) one Research Chemical Engineer or Physicist for plant investigations; (b) one Research Physicist or Chemist, preferably with some experience in research in printing; (c) one Organic Chemist, preferably with knowledge of adhesives and/or plastics; (d) one Junior Chemist or Physicist for training in mill control work, etc., previous industrial experience not essential. Commencing salary for junior not less than £275 per annum. Applicants under (a), (b), and (c) should be of more senior standing (up to the age of 35) and salary will be in accordance with qualifications and experience of the candidate. Applicants at present in Government service or in Essential Industries may be interviewed with a view to engagement, to be deferred until release is obtained. Will candidates please state whether they are applying under (a), (b), (c), or (d). All applications and particulars will be treated in strictest confidence.—Box 206, T. G. Scott & Son, Ltd., 9 Arundel Street, London, W.C.2.

Progressive well known firm of cattle food manufacturers have plant and selling organisation to develop other lines in this field or human foods. Sole concession or buy outright. Information invited in first instance of sufficient detail to warrant further negotiation.—Box 209, T. G. Scott & Son, Ltd., 9 Arundel Street, London, W.C.2.

Editorial Assistant (woman) required by metallurgical institute. Training in metallurgy, physics, or chemistry and a knowledge of German are essential. Salary by arrangement; superannuation scheme.—Box 101, T. G. Scott & Son, 9, Arundel Street, London, W.C.2.

B.Sc. in chemistry or metallurgy (capable of abstracting in two or three languages) required for London industrial science library.—Write full details, Box 204, T. G. Scott & Son, Ltd., 9 Arundel Street, London, W.C.2.

Research Fellow (Biochemist) required. Applications, with full particulars, to Secretary, Research Institute, 117 Grove Street, Liverpool 7.

Export: Managing Director established New Zealand distributors, visiting England shortly, desires contact Manufacturers binoculars and Cameras and Associated lines. Buying Agencies required now. Substantial orders can be placed immediately manufacturing facilities available.—Write Sawell, 4 Ludgate Circus, London, E.C.4. Central 4353.

Micro Chemical Balance, Oertling No. 63 PB or 62 preferred, required for urgent research work or would hire for definite period.—Apply, Box 208, T. G. Scott & Son, Ltd., 9 Arundel Street, London, W.C.2.

For Sale: *J. Soc. Chem. Ind.*, 1905-1920 and Reviews 1918-1922, all in black cloth. *Annual Reports*: 1904-1903; 1934-1937; 1940-1942. Meyer, Jacobson's *Lehrbuch. der Organischen Chemie*, 2nd Edn., complete. May be sold together or separately.—Write offers to Box 200, Smiths', 100 Fleet Street, E.C.4.

The proprietor of British patent No. 380,220 is prepared to license British manufacturers to work thereunder. It relates to analytical distillation apparatus.—Address: Boult Wade & Tennant, 112 Hatton Garden, E.C.1.

Microscopes, of all descriptions, only a few available second-hand, perfect condition. Send details of your requirements enclosing 3d. stamp.—Chards, Microscope Specialists, Forest Hill, S.E.23.

The fact that goods made of raw materials in short supply owing to war conditions are advertised in this publication should not be taken as an indication that they are necessarily available for export.

GRATICULES OF ALL KINDS

By THE RHEINBERG SECRET PROCESS OF
GRAINLESS PHOTOGRAPHY
(Makers of the Patterson Globe and Circle Graticule)

AS USED BY Government Departments—The Flying Services—National Physical Laboratory, London—Bureau of Standards, Washington, U.S.A.—Universities and Technical Colleges—Makers of all kinds of Scientific Instruments—Research Institutions—Scientific Investigators, etc.

Price list of Eyepiece- and Stage-Micrometers, Non-parallax Scales and other Graticules, of which a large stock is kept, post free

RHEINBERGS LTD.,
Temporary Address: 80 Barn Hill, WEMBLEY, MIDDX.
Phone: ARNold 3427, or through any scientific supply house

Our RARE BOOK DEPARTMENT is the LARGEST Stockist of Complete Sets, Runs and separate Volumes of

SCIENTIFIC PERIODICALS, ACADEMICAL AND LEARNED SOCIETY PUBLICATIONS
(English and Foreign)

WE INVITE OFFERS OF THESE, FOR WHICH WE ARE PREPARED TO PAY THE HIGHEST COMPETITIVE PRICES
COMPLETE LIBRARIES PURCHASED
Specially wanted. Complete set or any volumes of NATURE
EARLY SCIENTIFIC WORKS AND BOOKS ON THE HISTORY OF SCIENCE WANTED

CATALOGUES ISSUED

WM. DAWSON & SONS LTD.
43, Weymouth Street, - - - LONDON, W.1
Welbeck 1621

World-explanation in terms of physical, cosmopoietic space.

PERCY A. CAMPBELL'S
WHY THE UNIVERSE?
GEORGE FIELDS, *Bookseller and Publisher*
1419 POLK STREET, SAN FRANCISCO 9, CALIF., U.S.A.
Price $2.50

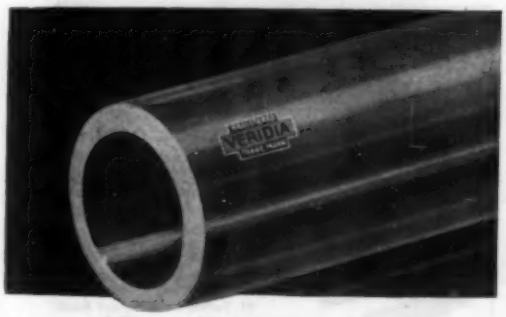
Meteorological Instruments
MERCURIAL BAROMETERS
THERMOMETERS
THERMOGRAPHS
HYGROGRAPHS
Supplied by Laboratory furnishers, Scientific Instrument dealers, etc.

F. DARTON & COMPANY LTD.
DIAMOND HOUSE, HATTON GARDEN, LONDON, E.C.1

MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM
THE LABORATORY, PLYMOUTH

Limited supplies of marine biological material are still available, but orders should be placed well in advance.

For prices and detailed information apply to:
THE DIRECTOR, THE MARINE BIOLOGICAL LABORATORY, PLYMOUTH.



PRECISION-BORE GLASS TUBING

Bore of fire-polish smoothness, uniform and true to size within one-thousandth inch, or closer tolerance if necessary. Clear, heat-proof glass, resistant to chemical attack. Made in all sizes, including capillaries.

ROTAMETER Mfg. Co. Ltd. PORTSLADE SUSSEX

VERIDIA
REGD. TRADE MARK

Never again

OF COURSE you remember, in those far-off days before the war, the glare and dazzle of on-coming car headlights. You also remember the way you closed your eyes, kept the wheel as steady as you could, and hoped for the best.

All that is over. When this war is finished, headlight glare will be a thing of the past. Polaroid will allow you to stare into approaching headlights as the eagle is said to stare unblinking into the mid-day sun.

Polaroid has made other miracles possible—for example, the projection of three-dimensional cinema pictures in full colour, anti-glare sun-glasses, non-glare reading lamps and a multiplicity of optical instruments.

Polaroid is made possible by the use of iodine. It is but one instance in a great field of development. New uses for iodine are constantly being found in medicine, agriculture and industry. So many new facts have been brought to light in the last hundred years that it has been necessary to set up an organisation to disseminate this knowledge. This organisation is the IODINE EDUCATIONAL BUREAU. It was formed in 1938. The services of this Bureau are available free to any institution or business with an iodine problem.

Iodine Educational Bureau
STONE HOUSE, BISHOPSGATE, LONDON, E.C.2

WALTER CONDENSERS ARE
MADE for LIFE

TYPE
356
(PADDER)
DETAILS AND SPECIFICATION SHEETS ON APPLICATION

WALTER
INSTRUMENTS, LTD.

EARLS COURT EXHIBITION BUILDINGS
EARLS COURT · LONDON · S.W.5. FUL 6192

C. R. C. 6

THE DINES
TILTING SYPHON
RAIN GAUGE

Overall height - - 34 in.
Diameter of base - 20 in.

This is the very latest type of Self-recording Rain Gauge, fitted with a tilting arrangement which ensures a complete syphoning when the rain water has filled the float chamber.

Price and further particulars on application from the Makers:

JAMES J. HICKS
(Incorporated with W. F. Stanley & Co., Ltd.)
8, 9 & 10 HATTON GARDEN, LONDON, E.C.1

JAMES
SWIFT
& SON LTD.

Manufacturers of
MICROSCOPES for
BIOLOGY, MINERALOGY, METALLURGY, PHOTOMICROGRAPHIC & PROJECTION APPARATUS, GONIOMETERS, REFRACTOMETERS, SPECTROMETERS, OPTICAL MEASURING & TESTING APPARATUS, POLARISING PRISMS & OPTICAL ELEMENTS

REPAIRS TO ANY MAKE OF ABOVE INSTRUMENTS

Owing to prevailing conditions delivery cannot always be guaranteed

81 Tottenham Court Road
London, W.1

SEVERAL GOOD MICROSCOPES
FOR SALE—WRITE FOR PARTICULARS

Zeiss 75 mm. 3-power Prismatic Telescope, on tripod £95 0 0
8× 30 H. G. Special Prismatic Binocular, in case - £16 16 0

TELESCOPES and MICROSCOPES
Wanted for Cash!

Note name and address:

BROADHURST, CLARKSON & CO. LTD.
63 Farringdon ROAD, London, E.C.1
(3 minutes from Farringdon Street Metro. Station)

WIDE-RANGE TRANSFORMERS

TYPES D-106 & D-139

for Modern Communications Equipment

- **FREQUENCY CHARACTERISTICS**

Practically linear from the lower audio frequencies to over 100 Kc/s. (See representative curves.)

- **IMPEDANCE RATIOS**

Many impedance ratios are available, from 1:1 to 500:1.

- **POWER**

Types D-139 will handle up to one watt A.C. power above 40 c.p.s.

Types D-106 are designed as input and interstage transformers where the power is negligible.

- **SCREENING**

All types double screened against electromagnetic and electrostatic interference.

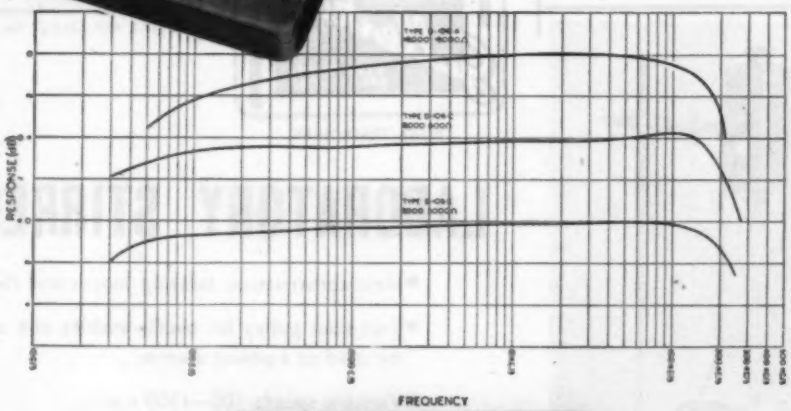
- **DIMENSIONS**

2⅝″ x 3½″ x 3″ high overall.

- **WEIGHT**

2½ lb.

Full information is given in Bulletin B-538-A which will gladly be sent on request.



MUIRHEAD

MUIRHEAD AND COMPANY LIMITED, ELMERS END, BECKENHAM, KENT. BECKENHAM 0041-0042.

FOR OVER 60 YEARS DESIGNERS & MAKERS OF PRECISION INSTRUMENTS

C.R.C 39

BECK MICROSCOPES

For over a century Beck Microscopes have been pre-eminent in design, workmanship and performance. In war conditions their aid to research, medicine and industry is essential.

R. & J. BECK Ltd.
69 Mortimer St.
LONDON, W.1

ZENITH
Registered Trade-Mark

PHASE-SHIFTING TRANSFORMER

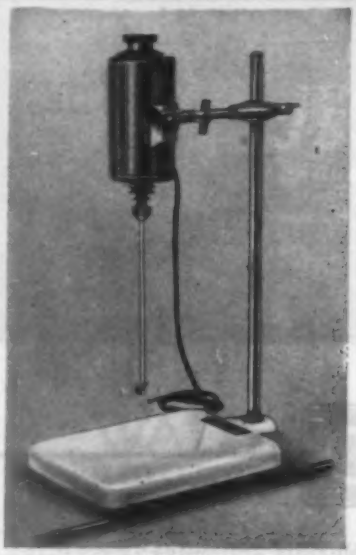
3-Phase
600 VA

Particulars on request

THE ZENITH ELECTRIC CO. LTD.
Sole Makers also of the well-known "Zenith" Resistances
ZENITH WORKS, VILLIERS ROAD
WILLESDEN GREEN, LONDON, N.W.2
Phone: WILlesden 4087-8-9 Grams: Voltaohm, Phone, London

LABORATORY APPARATUS
Gallenkamp
ELECTRICAL SPECIALITIES
REGD. TRADE-MARK

ADVERT. REF.—ELECT. No. 6.



b-10030/1

LABORATORY STIRRER

- Unit construction housing motor and rheostat.
- Two-step pulley on chuck enables the unit to be used as a power source.
- Variable speeds 100—1500 r.p.m.
- Stand mounted on rubber feet.

b-10030 STIRRER, on stand. EACH £14 0s. 0d.

b-10030/1. FLEXIBLE DRIVE, extra. EACH £1 17s. 6d.

A. GALLENKAMP & CO. LTD.
"TECHNICO HOUSE," 17-29, SUN ST., FINSBURY SQUARE, LONDON, E.C.2

Printed in Great Britain by FISHER, KNIGHT & CO., LTD., The Gainsborough Press, St. Albans, and published by MACMILLAN & CO., LIMITED, at St. Martin's Street, London, W.C.2, and THE MACMILLAN CO., 60 Fifth Avenue, New York 11, N.Y., U.S.A.—Saturday, June 24, 1944.